The Linguistic Review (*Special issue Workspace, MERGE & Labelling* 41)

On Wh and Subject Positions, the EPP, and Contextuality of Syntax

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Abstract: By examining local subject A'-movement, the paper argues for a split IP and a contextual approach to the EPP where its locus is not a fixed, unique position, but varies depending on the syntactic context. The landing site of subject wh-movement (***who*** *left*) is argued to be lower than non-subject wh-movement (***who*** *did he leave*) but higher than regular subjects (***Amy*** *left*). Quirky subjects are argued to be lower than agreeing subjects, with a generalization proposed regarding their availability. The overall account is extended to many cases, including V-2 in Germanic, subject-restricted relativizations, *only*-subjects, Defaka focus-movement, Hong Kong Sign Language wh-movement, imperative and CP subjects, locative inversion, Singlish non-agreeing subjects, Japanese and Chinese subjects. Regarding the EPP, the paper argues for a contextual approach where, on a par with a contextual approach to phases, there is an EPP domain, with the highest projection in the EPP domain being the locus of the EPP (on a par with the highest projection in a phasal domain being a phase). This conception of the EPP is put into a broader perspective regarding a more general move toward contextuality in syntax.

Keywords: EPP, split IP, wh-movement, quirky subjects, A/A' distinction, phases, agreement

1. Introduction

I will start by enumerating puzzles and issues that this paper will discuss. While at first sight it may appear that at least some of these issues are unrelated to each other, the discussion will show that they are in fact very much related. The first, and the main puzzle, that this paper will address concerns what I will refer to as the *who left* effect, regarding subject wh-questions like (1).

(1) Who left?

There is a considerable debate regarding how (1) should be analyzed, the main question being whether *who* is in SpecCP or SpecTP. The answer will be neither. In fact, we will see, based on broad crosslinguistic data, that the derivation that is most often assumed for (1), given in (2), clearly cannot be right, which will be shown to have numerous consequences, especially regarding the status of the EPP.

(2) $[_{CP}$ Who$_i$ $[_{TP}$ t_i $[_{vP}$ t_i left]]]

A number of related cases crosslinguistically will be examined regarding what looks like local subject A'-movements, where it is not clear whether something is in left periphery or SpecIP, e.g. the controversy whether subject V-2 clauses in Germanic are CPs with the subject in SpecCP, or IPs with the subject in SpecIP (cf. (3)), locative inversion, clausal subjects, imperative subjects, various non-agreeing subjects (including subjects in languages without agreement)…, which will all be unified with the *who left* effect.

(3) a. $[_{CP}$ Non-Subject V $[_{TP}$ Subject $[_{T'}$ …]]] b. $[_{CP\ or\ IP?}$ Subject V]

Another question that will be addressed, and shown to be related, is: Were we right to unsplit INFL? The answer will be no (quirky subjects will be one of the issues addressed during that discussion, with a new generalization proposed regarding their availability crosslinguistically). The answer will in turn be shown to have a bearing on another issue, delineating left periphery and the inflectional/A-field. Examination of left periphery and subject positions (so SpecIP and higher) will show that this cannot be done, which will in turn indicate that left periphery has no theoretical status (given that it cannot even be delineated).

The overarching concerns during the discussion will be what all this tells us about wh and subject positions, the EPP, and the syntax more generally. The answers to these concerns will lead to fine-tuning the position of various subject and wh-phrases, split IP, and a new conception of the EPP that situates it within a broader theoretical move toward contextuality in syntax more generally. In this respect, the

paper argues that the locus of the EPP effect is not a fixed, unique position, but varies depending on the syntactic context, the key to seeing this being *who left*, i.e. local subject A'-movement.

I will start the discussion in the next section with the *who left* effect. Section 3 compares examples in (4) and argues that *who* in (4b) is not as high as *who* in (4a) but is higher than *Amy* in (4c).

(4) a. I wonder **who John met** vs b. I wonder **who left** vs c. I think **Amy left**

This is then extended to a number of phenomena crosslinguistically (e.g. *only*-subjects, subject-restricted relativizations, aux-contraction, Defaka focus-movement, Norwegian C-marking, Hong Kong Sign Language rightward wh-movement, imperative subjects…), providing us with a new tool to address a number of well-known puzzles. An important concern during the discussion will be the status of the EPP. Section 4 examines quirky subjects. Section 5 focuses on certain asymmetries in Germanic V-2. Sections 6-7 discuss a number of non-nominal/non-agreeing subject constructions, including locative inversion, clausal subjects, and non-agreeing subjects in Singlish. Section 8 discusses subjects in languages without agreement (Japanese and Chinese). Section 9 examines constructions where objects have been argued to occur in the subject position. Sections 10-11 examine the consequences of the current discussion for the nature of the EPP, situating the main proposal this paper makes regarding the EPP within a broader move toward contextuality in syntax, which also argues against regarding syntax as fully Markovian in nature.

2. Starting point: The *who left* puzzle

Let us consider subject wh-questions like (5) in more detail.

(5) Who left?

It is sometimes suggested that *who* is in SpecIP in (5) (e.g. Carstens, Hornstein, & Seely 2016, Chomsky 1986; see also fn 2).[1] There is, however, strong evidence that this is not the case (see Bošković 2016a, 2021b, Messick 2020 and references therein). Thus, (6) shows that *hell* phrases, which modify only wh-moved DPs, can modify subject wh-phrases (Pesetsky 1987). Also, the possibility of inverse scope in (7b) shows that object *everyone* can scope over a quantifier in SpecIP. The impossibility of inverse scope in (7a) then indicates that *who* is not located in SpecIP in (7a) (Mizuguchi 2014). Furthermore, if sluicing involves wh-movement followed by IP deletion, as standardly assumed, the wh-phrase in (8) cannot be in SpecIP (Agbayani 2000). (6)-(8) thus provide evidence that *who* does not stay in SpecIP in (5).

(6) a. *Who bought what the hell? b. What the hell did John buy?
c. Who the hell bought that house?

(7) a. Who loves everyone? (who>everyone; *everyone>who)
b. Someone loves everyone. (someone >everyone; everyone>someone)

(8) Someone bought a car. Who?

There is also a lot of evidence that examples like (5) crosslinguistically do not involve subject wh-movement through SpecIP. Thus, in a number of languages with both SV and VS order where in the latter the subject doesn't move to SpecIP, the two orders are associated with different subject-agreement morphology. What we get in *who left* is the morphology associated with the VS word order (e.g. Fiorentino). This shows wh-movement to SpecCP cannot proceed via SpecIP or we would get the S-V order morphology. The same point can be made with languages where the agreement morphology associated with subjects in SpecIP must be dropped in *who left* (Kinande, Kaqchikel; see e.g. Bošković 2016a, Erlewine 2016, Schneider-Zioga 1995). This is illustrated for Kinande in (9), where instead of the usual agreement morphology we get what is referred to as anti-agreement in subject questions (compare (9a-b) and (9c)).

(9) a. Kambale **a.**langira Marya b. *Iyondi yo **a.**langira Marya
Kambale agr.saw Mary who C agr.saw Mary

[1] I will be using IP instead of TP since I will argue that IP should be split—TP will then be just one of the split IP projections.

c. Iyondi yo **u.**langira Marya
who C anti-agr.saw Mary (Kinande, Schneider-Zioga 1995)

This also holds for quirky subjects, as in Icelandic (10). (10a) shows experiencers block agreement with lower nominatives. However, an NP-trace does not induce a blocking effect, as shown by (10b), where the experiencer is a quirky subject, i.e. it moves to SpecIP. On the other hand, (10c) shows a wh-trace does induce a blocking effect. Now, if the experiencer in (10c) were to move to SpecIP before wh-movement, the intervener would be an NP-trace, and (10c) should pattern with (10b), which it doesn't. The wh-phrase apparently does not, in fact cannot, move to SpecIP in (10c); it must move directly to SpecCP.

(10) a. Það virðist/*virðast **einhverjum manni** [hestarnir vera seinir]
EXPL seems/seem$_{PL}$ some man$_{DAT}$ the-horses$_{NOM}$ be slow
'It seems to some man that the horses are slow.'
b. **Mér** virðast **t**$_{NP}$ [hestarnir vera seinir]
me$_{DAT}$ seem$_{PL}$ the-horses$_{NOM}$ be slow (Holmberg & Hróarsdóttir 2004)
c. **Hverjum** mundi/?*mundu hafa virst **t**$_{wh}$ [hestarnir vera seinir]
who$_{DAT}$ would$_{3SG}$/would$_{3PL}$ have seemed the-horses$_{NOM}$ be slow
'To whom would it have seemed that the horses are slow?' (Nomura 2005)

Another argument comes from auxiliary(aux)-contraction (Bošković 2021b). Aux-contraction is not possible when the aux is followed by a wh-trace (Bresnan 1971, Kaisse 1983; Bošković in preparation argues that this holds when the auxiliary and the wh-trace are located in the same phase).

(11) a. I know where$_i$ John is t_i (tonight). b. *I know where$_i$ John's t_i (tonight).

That aux-contraction is allowed in (12) then indicates that wh-movement in (12) does not proceed via SpecIP, leaving a wh-trace in that position (note that I assume that the aux is in C here[2]).

(12) Who's leaving tonight?

Additionally, Bošković (2021a) provides a number of arguments that null C induces Comp-trace effects, as would be expected under a syntactic account of the effect (this means there is no CP in the embedded clause in *who do you think left,* see also Bošković 1997, Rizzi 2006, Rizzi and Shlonsky 2007, Chomsky 2015). One argument comes from (13), which parallels the familiar Comp-trace effect paradigm: object and adjunct movement are allowed, but subject movement isn't. Given the parallelism, Bošković (2021a) gives a null-C-inducing-a-Comp-trace-effect account of (13), and a number of additional paradigms.

(13) a. What is it likely [John will read t]? b. How is it likely [John fixed the car t]?
c. *Who is it likely [t will read the book]?

Given that null C induces a Comp-trace effect and that *who* in (5) does undergo wh-movement, a question arises: why doesn't a Comp-trace effect arise with subject wh-questions like (5), which should involve movement crossing C (the C is null but that doesn't matter)? The answer is straightforward if subject wh-movement does not pass through SpecIP. What is subject to the Comp-trace effect is the trace in SpecIP. Thus, it is well-known that in languages where subjects can stay postverbally, without raising to SpecIP, the Comp-trace effect is inoperative. The same holds for (14), where *there* fills the subject position.

(14) How many women did he claim that there were in the garden?

[2]It is sometimes suggested subject questions do not involve inversion due to the lack of *do*-support. The conclusion is erroneous. *Do*-support is a last resort mechanism to support a stranded tense affix when a phonologically realized element intervenes between it and the verb (e.g. Chomsky 1957, Lasnik 1995b, Bobaljik 1995). There is no phonologically realized intervener in *who walked* (cf. who C+**T**(**ed**) **walk**—C+T indicates T-to-C movement), just as in *she walked* (cf. she **T**(**ed**) **walk**), and in contrast to *what did she buy* (cf. what C+**T**(**ed**) she **buy**). Only the last case then triggers *do*-support.

If subject wh-movement does not pass through SpecIP, (5) in fact parallels (14), rather than (13c), in the relevant respect (notice that the claim here is that only subject wh-movement to interrogative SpecCP does not pass through SpecIP in English, for reasons to be discussed below).

Conclusive evidence that local subject questions do not involve wh-movement via SpecIP is provided by the following West Ulster English (WUE) data, noted by McCloskey (2000).

(15) a. Who was arrested all in Duke Street?
b. *They were arrested all last night
(16) What$_i$ did he say all t_i that he wanted? (McCloskey 2000)

Unlike standard English, WUE allows Q-float under wh-movement (16). Such Q-float is also possible in (15a). Still, just like standard English, WUE disallows (15b): a subject in SpecIP cannot float a quantifier in the postverbal position in passives. This rules out the derivation where *who* in (15a) moves to SpecCP via SpecIP since *all* would then float under movement to SpecIP. This is disallowed, as (15b) shows. Note that the *who*-in-SpecIP option is also ruled out by this paradigm.

I conclude therefore that *who* does not pass through SpecIP in *who left/*(5). How is the EPP satisfied in (5) then? In the following I address the issue by arguing that there are two wh-positions, a higher and a lower one, where the lower wh-position is occupied by wh-moved subjects. I will then show that this resolves the EPP issue in a way that also has important consequences for our understanding of the EPP.

3. Evidence for two wh-positions

3.1. Subject wh-movement behaves differently

One argument that wh-moved subjects and objects do not move to the same position concerns Kaisse's (1983) observation that there is a one-word host restriction on contracted auxiliaries hosted by moved wh-phrases, as shown by the contrast between examples in (17) and those in (18). Crucially, this holds only for non-subject wh-phrases. Thus, (18a-b) contrast with (19a-b). I take this to indicate that the wh-phrases/auxiliaries are not in the same position in non-subject (18a-b) and subject (19a-b) questions (recall that subject wh-phrases do undergo wh-movement.)[3]

(17) a. What's Mary buying? b. When's dinner? c. How's your old man?
(18) a. *Whose food's the dog eating?
b. *Which man's she the fondest of?
(19) a. Whose food's burning?
b. Which man's leaving first? (Kaisse 1983)

Consider also interaction with topicalization. (20) shows that only the landing site of non-subject wh-movement is above the topic, which means that wh-moved subjects are lower than wh-moved objects.

(20) a. ?Mary wonders which book, for Kim, Peter should buy.
b. *Mary wonders which student, for Kim, should buy that book.

Interaction with polarity adverbs also suggests different landing sites for non-subject and subject wh-movement, given that the two behave quite differently in this case as well (see below for an account).

(21) a. ?*What under no circumstances should Mary ever buy?
b. Who under no circumstances should ever hire Peter?
(22) a. *What should under no circumstances Mary ever buy?
b. Who should under no circumstances ever hire Peter?

[3]T. Messick (p.c.) notes that *hell* phrases are exceptional (*what the hell's he talking about*) and that what may be relevant here is Merchant's (2002) claim that *the hell* is a complex head with *what*, based on (i) (this does not affect the point in the text).
(i) a. He was talking, but I don't know what about/*which topic about.
b. He was talking, but I don't know what the hell about.

Importantly, long-distance moved subjects pattern with objects. Regarding aux-contraction, (23) patterns with (18), not (19), which means that only local subject wh-movement goes to the lower wh-position.

(23) *Which man's Peter claiming will leave first?

The same pattern is found with topicalization: (24b) is better than (24a).
(24) a. *Mary wonders which student, for Kim, should buy that book.
b. ?I wonder which student, for Kim, Mary said should buy that book.

The short/long-distance contrast is even clearer with polarity adverbs, as (25)-(26) show. Long-distance subject extraction in (27) also patterns with object extraction in (22a), not subject extraction in (22b).

(25) *Who under no circumstances should Ann ever say stole it?
(26) Who under no circumstances should ever hire Peter?
(27) *What should under no circumstances Mary ever believe destroyed her car?

The above data thus indicate that there are two wh-positions, a higher one and a lower one, where the lower wh-position is occupied by wh-moved subjects. More precisely, it is occupied by locally-moved wh-subjects. Long-distance moved subjects pattern with objects. In the next section I provide additional evidence to this effect based on constructions where the head whose Spec is occupied by wh-moved elements is realized differently with local subject wh-movement and other cases of wh-movement.

3.2. Specs of different heads[4]

In Belfast English (see Henry 1995), the C in wh-questions can be realized as *that,* as in (28)-(29), involving object and adjunct questions. This, however, is not possible with local subject wh-questions, as in (30) (Henry does not discuss long-distance subject questions). The obvious conclusion here is that *which author* in (30) does not land in the Spec of the same head as *which dish* and *when* in (28)-(29).

(28) I wonder which dish that they picked.
(29) I don't know when that he is going.
(30) *I wonder which author that wrote this book.

We find a similar, though superficially opposite situation in Norwegian (*som* is distinct from declarative C 'that'), as (31) shows. It is similar in that we are also dealing with a Specs-of-different-heads situation but the relevant head is now phonologically overt with local subject movement, but not with object (and long-distance subject) movement. This shows that being phonologically overt or not is not crucial here.

(31) a. Vi vet hvem (*som) Marit snakker med.
we know who that Marit talks with
'We know who Marit is talking with.'
b. Vi vet hvem *(som) snakker med Marit.
we know who that talks with Marit
'We know who is talking with Marit.' (Taraldsen 1986:150)
c. Vi vet hvem (*som) Pål tror (at) har kommet.
we know who that Paul thinks that has come.
'We know who Paul thinks (that) has come.' (Taraldsen 1986:175)

This is confirmed by situations where in both cases the relevant head is morphologically realized but differently with subject and non-subject movement. Defaka provides one such case regarding focalization. Defaka is a focus-movement language. (32a) gives a neutral sentence without focus movement. (32b)

[4]For a different perspective on some of the constructions discussed in this section, see Pesetsky (2021).

involves local subject focalization and (32c) object focalization. Note that (32b-c) involve different focus markers, and there is also a difference in verbal morphology. In other words, there is a morphological reflex of focus movement in both cases (both (32b) and (32c) differ from (32a)), but the reflex is different in the two cases, indicating that the focalization in these cases does not target the Spec of the same head.

(32) a. ì Bòmá ésé-kà-rè *No focus-fronting*
I Boma see-fut-neg
'I will not see Boma.'

b. ì **kò** Bòmá ésé-kà-rè *Local-subject focus*
I foc Boma see-fut-neg
'I will not see Boma.'

c. Bòmá **ndò** ì ésé-kà-rè-**kè** *Object focus*
Boma foc I see-fut-neg-ke
'I will not see Boma.' (Bennett et al 2012)

Importantly, adjunct fronting and long-distance subject fronting pattern with (32c), i.e. object-fronting.

(33) a. [ándù kìkià] **ndò** à èbèrè rì bòì-mà-**kè** *Adjunct focus*
canoe under foc the dog ke hide-nfut-ke
'The dog is hiding under the canoe.' (Bennett et al. 2012:296)

b. òmòmò **ndò** Bòmá ìbò tínà árí-**kè**
now foc Boma big fish catch-ke
'Boma caught a big fish just now.' (Bennett 2009:18)

(34) Bruce$_1$ **ndò**/***kò** Bòmá jírí-*(**kè**) [$_{CP}$ __$_1$ á ésé-mà] *Nonlocal-subject focus*
Boma foc/*foc.sbj Boma know-*(ke) her see-nfut
'Boma knows (that) Bruce saw her.' (Bennett et al. 2012:297)

Bùlì, where wh-moved objects and subjects also occur with different particles (Sulemana 2017, Pesetsky 2021), is particularly relevant since it may provide more direct evidence that wh-moved subjects and objects have different landing sites since the subject particle is lower, which can be seen by comparing the placement of the adverb "usually" with respect to these particles. Note that long-distance subject extraction patterns with object-extraction, see Pesetsky (2021).

(35) a. Ká b^{w}ā **ātì** Azuma **ŋ̄īem** á dīgī:?
Q what ĀTÌ Azuma usually IPFV cooks
'What is it that Azuma usually cook?'

b. *Ká b^{w}ā **ŋ̄īem** **ātì** Azuma á dīgī:?
Q what usually ĀTÌ Azuma IPFV cooks
(object extraction)

c. Ká wānā **ŋ̄īem** **ālì** á dīgī: lām?
Q who usually ĀLÌ IPFV cooks meat
'Who usually cooks meat?'

d. *Ká wānā **ālì** **ŋ̄īem** á dīgī: lām?
Q who ĀLÌ usually IPFV cooks meat
(local subject extraction) (Sulemana 2017)

In the next section, I give a different kind of argument for two wh-movement positions. The arguments given in the next section do not involve different morphological marking but restricted processes, i.e. they involve processes that are restricted to certain wh-movements, where the cut that they make is exactly the one predicted by the above proposal regarding different landing sites of wh-movement.

3.3. Restricted processes

3.3.1. Brazilian Portuguese *nunca* ellipsis

The first case involves Brazilian Portuguese (BP) *nunca*-ellipsis, discussed in Dias (2022). It is illustrated by (36B). Importantly, *nunca*-ellipsis is not possible with wh-objects, as shown by (36B').

(36) A: Pedro beijou João. B: Quem nunca [~~beijou João~~]

'Pedro kissed John' who never kissed John
'Who has never kissed John?'
B': *Quem Pedro nunca [~~beijou t~~] (cf. Quem Pedro nunca beijou?)
who Pedro never kissed
'Who did Pedro never kiss?' (Dias 2022)

It is also not possible with adjuncts and long-distance moved subjects, as shown below for the latter.
(37) A. Maria disse que Pedro beijou João. B. *Quem Maria nunca [~~disse que~~ ~~Pedro beijou~~ *t*]?
M. said that P. kissed J. who M. never said that P. kissed
'Who has Maria never said kissed João?' (Dias 2022)

Nunca-ellipsis is thus only available with local wh-subjects. Under the current proposal, finding this kind of restriction is not surprising at all—in fact, the restriction can be stated in simple structural terms: *nunca*-ellipsis involves ellipsis of the complement of the lower wh-movement head (see below for a more detailed discussion; in fact, it is possible that *nunca* is located in the relevant head position).

3.3.2. Wh-movement in Hong Kong Sign Language (HKSL)

I now turn to wh-movement in HKSL. Sign languages in general have been argued to involve rightward wh-movement. Gan (2022) shows this also holds for HKSL. The wh-object in (38a) could in principle be in situ or wh-moved to the right. (38b) shows that it cannot undergo leftward wh-movement. (39)-(41) provide evidence that what appears to be object wh-in-situ actually involves rightward wh-movement. The adverb SHORT-TIME follows the object in (39). This, however, is not possible with wh-objects, which must follow the adverb (40)-(41). Gan interprets this as indicating that HKSL is not a wh-in-situ language—it is a wh-movement language, with wh-movement taking place to the right, as has been claimed for other sign languages. Subjects in long-distance questions also cannot be initial (42)-(43).

(38) a. AARON LIKE WHAT/WHO?
b. *WHAT/WHO AARON LIKE?
(39) AARON EAT BREAKFAST SHORT-TIME.
'Aaron ate the breakfast quickly.'
(40) *AARON EAT WHAT SHORT TIME.
(41) AARON EAT SHORT-TIME WHAT?
(42) KENNY THINK HELP-a AARONa WHO
'Who does Kenny think helped Aaron?'
(43) *WHO KENNY THINK HELP-a AARONa?

But there is an exception, as shown in (44).

(44) WHO EAT FISH NOT
'Who does not eat fish?'

Only locally moved subjects (see Gan 2022 for evidence that the subject in (44) is moved—it is higher than SpecIP) need not undergo rightward wh-movement in HKSL. This pattern can receive a structural account if local subject wh-movement targets a different position from wh-movement of other elements.[5]

3.3.3. British *do*-ellipsis

British English allows *do* to co-occur with an auxiliary/modal in what looks like VP-ellipsis, as in (45).

(45) Tom should write a paper and Emma should **do** $_{VP}$ △ too.

[5]Note that EAT FISH NOT WHO is also possible; regarding why rightward movement is also an option here, see Gan (2022), who actually uses this, and the overall HKSL paradigm, to argue for the system developed here (the same holds for Dias 2022 regarding *nunca*-ellipsis and Lewis 2022 regarding *do*-ellipsis discussed below).

Do-ellipsis disallows object wh-extraction out of it. The same holds for long-distance subject extraction.

(46) a. Although I don't know what Tom will read, I do know what Fred will (***do)**. (Baltin 2006)
b. I don't know who Tom thinks will leave, but I do know who Emily thinks will (***do**) (Lewis 2022)

Importantly, Lewis (2022) shows that short subject wh-extraction is allowed:

(47) A: Sue wouldn't kiss Peter last night. B: Well, who WOULD **(do)**? (Lewis 2022)

This is the same pattern as *nunca*-ellipsis and HKSL wh-movement, involving a process restricted to local subject wh-movement. Like those other cases, this restriction is not surprising from the current perspective and can be captured in structural terms given two landing sites for wh-movement (see Lewis 2022).

3.3.4. Local subject movement only

Branan and Erlewine (in press) discuss a number of languages with an A'-movement operation restricted to local subjects. Most of their cases involve relatives and instantiate Keenan and Comrie's (1977) observation that there are languages with relativization strategies that apply specifically to local subjects. Below, I will refer to Palestinian Arabic as a representative of this class of languages. Note that it is not the case that non-subjects cannot be relativized in such languages. However, they involve a different relativization strategy (see Shlonsky 1992 for Palestinian Arabic). Interestingly, Branan and Erlewine argue with respect to several languages with subject-only relativization strategies that those alternative relativization strategies, which do not involve local subjects, land in a different structural position.

What we are seeing here is the same pattern as in BP *nunca*-ellipsis, HKSL wh-movement, and British *do*-ellipsis: like these three, languages like Palestinian Arabic have a process restricted to local subject wh-movement. Like those other cases, this restriction is also not surprising from the current perspective.

3.3.5. *Respectively* reading in ATB constructions and null operator clefts/relatives

Consider also the *respectively* reading in across-the-board-movement constructions. This reading is possible with non-subjects, as shown by the answer to (48a) given in (48b).

(48) a. In what cities did Mary vacation and Bill decide to live?
b. Mary vacationed in Paris and Bill decided to live in Toronto. (Zhang 2010: 233)

Interestingly, the *respectively* reading is not possible with an extracted *subject*, as shown by (49a).

(49) a. Which men murdered Sam and wounded Bill?
b. #Fred murdered Sam and Joe wounded Bill. (Zhang 2010: 234)

This, however, holds only for short-distance moved subjects; the *respectively* reading is possible with long-distance moved subjects.[6]

(50) a. Which men did Peter believe murdered Sam and wounded Bill?
b. Peter believed Fred murdered Sam and Joe wounded Bill.

The *respectively* reading shows the same restriction as BP *nunca*-ellipsis, HKSL wh-movement, *do*-ellipsis, and restricted relativization, the only difference being that in those other cases only local subject wh-movement was able to do something, while here only local subject wh-movement is unable to do something. But the restriction is still the same in that it treats local subject A'-movement differently, and it can be accounted for in structural terms under the current analysis, as we will see below.

A similar situation is found with null operator clefts and relatives. Only local subjects disallow them; to illustrate with clefts, compare object cleft *it's Sue you like* and long-distance subject cleft *it's Sue you think likes him* with local subject cleft **it's Sue likes him*.

To sum up, there are two wh-positions, a higher one and a lower one, where the lower wh-position is occupied by locally moved wh-subjects. I suggest that the reason why the lower wh-position is confined

[6]One of my informants did not accept it. I am focusing here on the speakers for whom the pattern reported above holds.

to subjects is that it is a mixed A/A' position on the border of the traditional A and A' fields (it is not either traditional SpecCP or SpecIP). It is the landing site of wh-movement, but also the position where the EPP is satisfied (left periphery cannot be delineated then). This explains the otherwise puzzling voiding of the EPP effect in (15a) (if *who* had to move via SpecIP *all* would be floated from the same position in (15a-b)), and more generally *who left.* The EPP is satisfied here. In particular, it is satisfied in the lower wh-position, a mixed A/A' position confined to locally A'-moved subjects.

The analysis straightforwardly captures all the facts from section 3.2. Thus, recall that in Norwegian questions, *som* occurs only with local subject wh-movement. It can be considered to be a PF realization of the A/A'-head, with subject wh-movement stopping in its Spec (I'll refer to it as SpecA/A'P for ease of exposition). The account is extendable to Defaka and Bùlì, which also have PF realizations of the A/A'-head, distinct from C. The A/A' head and C also have different PF manifestations in Belfast English.

As for the processes from section 3.3, which are restricted to local subject wh-movement, they receive a structural account, with wh-subjects/operators in BP *nunca*-ellipsis, HKSL questions, *do*-ellipsis and Palestinian Arabic relatives being in SpecA/A'P, confirming the current account of *who left*.[7] The local subject restriction on *respectively* readings and null Op clefts can also be captured by appealing to A/A'P (e.g. null Op cannot occur in SpecA/A'P with the latter). Recall also the Kinande paradigm in (9). It too receives a straightforward structural account, with anti-agreement in SpecA/A'P and regular agreement in SpecIP.[8] It should be noted that Branan & Erlewine (in press) and Shlonsky (1992) argue that the relativization movement in subject-restricted relativization is not simply A'-movement. (Branan & Erlewine essentially argue that it is mixed A/A'-movement and Shlonsky that it is A-movement, although for both the movement lands in SpecCP.) Under the current analysis, the reason why the relevant movement is not a simple A'-movement is that it also satisfies the EPP—its landing site is in fact not SpecCP.

Most importantly, the above leads to a new, contextual conception of the EPP, which is on a par with the contextual approach to phases in Bošković (2012, 2013, 2014), where there are phasal domains and the highest phrase in a phasal domain is a phase (e.g., DP is a phase in the nominal domain when present; when it isn't, a lower projection is a phase). In particular, there is an EPP domain, with the highest phrase in this domain being the locus of the EPP, as shown in (51). (The EPP domain will be expanded below.)[9]

(51) EPP domain (in italics): [$_{CP}$ who-acc *[$_{A/A'P}$ who-nom [$_{IP}$ Amy-nom*

It's worth noting here that Branan and Erlewine (in press) analyze constructions discussed in section 3.3.4 in terms of A'-probing for the closest DP. They themselves call this "unusual and conceptually surprising"

[7]Note that, as discussed by Gan (2022) (this has also been claimed for other sign languages) all Specs except the Spec of traditional wh-movement are to the left in HKSL. This would then also be the case with SpecA/A'P.

[8]The above proposal may also shed light on some aspects of A'-extraction of possessors in West Circassian. Ershova (in press) establishes the following generalizations regarding such extraction from DPs:
(i) Clause-mate possessor extraction is possible out of absolutive DPs, not possible out of ergative and applied object DPs.
(ii) Long-distance possessor extraction is possible out of all of them.
(iii) Absolutive DPs are in SpecIP, ergative DPs in SpecvP, and applied object DPs in SpecApplP.
Suppose now that in English, with local A'-extraction, the relevant Op-feature can be in C(P) or A/A'(P), the latter being the case with subjects. In West Circassian, on the other hand, the latter also holds for possessors. A result of this is that only the element that would normally go to SpecIP, or the possessor of that element, which should agree with it, can go to SpecA/A'P in West Circassian. (i)-(ii) then immediately follow, given Ershova's (iii).

[9]A referee asks how the current work compares with Rizzi and Shlonsky (2007) (RS). For RS, the EPP can be satisfied by the Spec of the EPP-locus head, call it X, or by the head above X, since that head is local enough to X. The current work is similar in that the higher phrase can be relevant, but it is still quite different. For RS, the locus of the EPP is always the same, you just need to be close to it (RS essentially redefine the checking domain). For us, that is not the case, the locus itself is different; in that sense the current approach to the EPP is contextual, while RS's is not. Also, in the current approach, it is always the Spec that satisfies the EPP (in fact, as we will see below, of three different phrases, which cannot be stated in terms of RS's locality). In the current approach, in *who left, who* satisfies the EPP, which is not the case in RS (in fact, for RS there is a single EPP-satisfying Spec and *who* in *who left* is in the regular wh-movement landing site (like *what* in *what did he buy*), which is not the case in the current approach). Still, there are important similarities between the current work and RS.

since this essentially amounts to "A'-extraction that has the locality of A-movement". Probing for the closest DP is in fact associated with the traditional EPP. Under the current analysis this actually is the traditional EPP probing. What we have in the relevant cases is movement that results in creation of an Op-variable relationship, hence Branan and Erlewine call it A'-probing, but it is mixed since it has the traditional EPP flavor in that it results in attraction of the closest DP.[10] All of this is straightforwardly captured under the current analysis. Their restriction on probing, which looks like traditional EPP, now really is about satisfying the EPP—it is the traditional EPP. While it is strange to have a pure A'-movement confined only to DPs, in fact the closest DP (things like wh-movement and topicalization also affect non-DPs, and not just the closest DP/non-DP), all this makes sense under the current analysis: we are dealing here with a regular EPP effect, which is stated in terms of attracting the closest DP.[11]

The above analysis may also help us capture the long-standing intuition (see e.g. Chomsky 1986) that extraction from subject wh-islands is less degraded than from non-subject wh-islands.

(52) ?What$_i$ do you wonder who bought t_i?
(53) ??What$_i$ do you wonder how she bought t_i?

Given that the issue here is wh-movement to an A'-position across an A'-Spec (Rizzi 1990a), what may matter is that in (52) the crossed position is not a pure A'-position, while in (53) it is. (It is essentially a you-get-to-have-your-cake-and-eat-it situation: under the current analysis, there is subject wh-movement in *who left* but it is not pure A'-movement. For more evidence to this effect, see (87)-(90)).

3.4. Focus subjects

Focalized subjects may also move to the position in question (see also (32)), which is not surprising given that wh and focalized elements often pattern together regarding movement. Consider (54).

(54) a. Only his girlfriend does John give any flowers.
b. *John gives only his girlfriend any flowers.
(55) Only Mary showed any respect for the visitors. (Branigan 1992:84)

Only-licensor c-commands the NPI in (54), which apparently cannot be licensed from a purely A-position. (55) can then be captured if the focalized subject moves to the mixed A/A' position like *who* in (5).[12]

Under the above analysis, the *only* DP in (55) is not in SpecIP, hence it can license the NPI, but it is also not in SpecCP. Consequently, it does not block inversion.

(56) Did only Mary show any respect for the visitors?

Note also that *only*-subjects interact in the same way with topicalization as local subject wh-movement, as expected given the above discussion, since both involve movement to SpecA/A'P (cf. (57) and (20)).

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[10]Branan & Erlewine to a large extent follow a proposal by Aldridge (2004), where C has an EPP feature which attracts a DP.
[11]Branan and Erlewine actually show that in some cases, an independent movement operation can move a non-subject above the subject, which remains low in the structure but below the probe in question. In that case, the non-subject moves to the position in question. This is not surprising under the current analysis since there are cases where non-subjects have been argued to satisfy the EPP (see section 9). The relevant cases would receive this kind of treatment under the current analysis.
[12]Note that *only*-subjects induce locality effects, in particular, they block extraction of adjuncts (**it's for this reason that only Sue believes [Jon was fired t],* see Rizzi 1990a). For most speakers, *who did only Sue show any respect to* is better than (52). The reason may be the wh-feature–(52) involves wh-movement over a wh-phrase (superiority may then be an issue), which is not the case in the *only*-example (under current approaches, the feature involved also matters in intervention effects). As another option, Zanon (2018) argues that *only* is base-generated alone, the element it modifies moving to adjoin to it. Given that adjunction can be acyclic, it is possible that this adjunction-to-*only* movement occurs acyclically after the wh-phrase moves to SpecCP, hence no intervention effect arises (the option should not be available for adjuncts; cf. also fn. 24/34).

The discussion above implies that the A/A' head does not have the same featural content in all its instantiations (additional ones will be discussed below). Regarding inversion, inversion targets as its landing site the head with a +wh-feature; in subject questions, this is the A/A' head (there is no separate +wh-C in such cases), otherwise it is C.

(57) a. That book, only John retrieved from the library.
b. *Only John, that book, retrieved from the library.

Topics and *only*-objects interact differently, as shown by (58).[13]
(58) Yeah, I gave a ton of stuff to different people. And what about Mary?
a. ?*Only the book, to Mary, I gave. b. ?*To Mary, only the book I gave.

Not surprisingly given the above discussion, long-distance subjects again pattern with objects.

(59) *That book, only John Mary thinks gave to Amy.
(60) *Only John, that book Mary thinks gave to Amy.

Another scope puzzle receives an explanation under the current analysis. Recall that inverse scope is possible in (61) but not (62). This can be accounted if the inverse scope in (61) arises as a result of the object quantifier raising to adjoin to IP. Since *who* in (62) is higher than IP, inverse scope is not possible here. Interestingly, inverse scope is also not possible in (63) (see Beghelli 1995, Sato 2003).

(61) Someone likes everyone. inverse scope OK
(62) Who likes everyone? *inverse scope
(63) Nobody likes everyone. *inverse scope

The most straightforward explanation of this is that *nobody* in (63) is higher than SpecIP. Indeed, in many languages corresponding negative elements must undergo focus-movement (on focus-movement of negative constituents, see Bošković 2009). It then stands to reason that *nobody* moves to SpecA/A'P in (63), hence the lack of inverse scope.[14]

A puzzle concerning imperatives also receives a principled account, providing another case of locally moved focus subjects. What is relevant to this puzzle is object drop in Germanic, illustrated in (64).

(64) A: Hvað finnst þér um nýja húsvörðinn? (Icelandic)
what think you about new janitor.the
B: Veit é(g) ekki __, hef é(g) ekki séð __ enn.
know I not have I not seen yet
'I don't know (that), I have still not seen (him).' (Sigurðsson and Maling 2008)

Sigurðsson and Maling (2008) observe that such null objects are possible only with an empty SpecCP, as illustrated below: note that Icelandic is a V-2 language, hence *núna* in (65b) is located in SpecCP.

(65) a. (Það) þekki é(g) ekki __. b. *Núna þekki é(g) ekki __.
(that) recognize I not now recognize I not

Bošković (2011) argues that these null objects are licensed by moving to SpecCP, this is why SpecCP cannot be filled by anything else.

While imperatives typically have a null subject, the subject can be overt, as in *(You) buy yourself a nice present.* Sigurðsson and Maling (2008) observe that an overt subject blocks object drop in Icelandic imperatives. The effect is also found in English (see Bošković 2011, Sadock 1974).

(66) a. Open carefully!

[13]This may indicate that dedicated focus movement in English is confined to A/A'P, a subject-dedicated position (like *nunca*-ellipsis in BP; this would be about where *only* can be generated under Zanon 2018, where *only* is generated separately). Otherwise, fronting of *only* DPs goes to what's often inappropriately called SpecTopP (in English all kinds of elements move there, different kinds of topics, corrective focus, *only* DPs; this is why, in contrast to many other languages, only one of these can be fronted in English). For an alternative, compatible with the current system, based on null op-movement, see Rizzi (2017).
[14]As is well-known, *nobody* does induce some locality blocking effects (i.e. inner island effects, see Rizzi 1990a).

b. *?You open carefully!
c. You open it carefully!

There is evidence that the null object in imperatives undergoes movement: these null objects license parasitic gaps, which can only be licensed under movement.

(67) Open without closing afterward

Why does the overt imperative subject block object drop in (66)? Note that the overt subject is focalized, i.e. it is contrastively focused, in contrast to the null subject. I suggest, then, that being focalized, the subject in (66b-c) undergoes movement to SpecA/A'P, hence it blocks A'-movement of the null object.[15]

To sum up, I have argued that what was considered before to involve local subject A'-movement does not land in either SpecCP or SpecIP, but in a projection with mixed A/A' properties, which indicates that left periphery cannot be delineated from the inflectional domain. Since the projection is not present when there is no local subject A'-movement (in such cases the EPP is satisfied in a lower projection, see below), the above discussion also argues against the universal functional sequence/universally split IP/CP (for arguments for the they-are-not-all-always-there position regarding split CP, see also Bošković 2016a, 2022a, Erlewine 2016). Most importantly, the above discussion has led to a new, contextual approach to the EPP, where, on a par with phases, there is an EPP domain, with the highest projection in the domain being the locus of the EPP. The EPP domain will be expanded in the following section.

4. Expanding the EPP domain: Quirky subjects

So far we have (68) for different subjects:

(68) [$_{A/A'P}$ wh-moved subject [$_{IP}$ Mary

I will now explore the possibility of additional subject positions. Consider first the argument for a return to split IP from Bošković (2020): Given that bar-level coordination is disallowed, (69), where the subject is outside and the modal inside the coordination, provides evidence that the subject and the modal are not in the same phrase, the modal being lower than the phrase whose Spec the subject occupies, which means IP should be split (see Bošković 2022b and references there for additional arguments to this effect).

(69) John [travels to Rome tomorrow] and [will fly for Paris on Sunday].

Split IP leaves room for additional subject positions (for relevant discussion, see also Cardinaletti 2004). In this respect, Bošković (2019) argues that non-agreeing quirky subjects (see Icelandic (71)) are lower than agreeing subjects (in early minimalist structure, which split IP into AgrsP and TP, XP would be AgrsP and YP TP—non-agreeing subjects are naturally not located in SpecAgrsP).

(70) [$_{A/A'P}$ wh-moved subject [$_{XP/AgrsP}$ Mary [$_{YP/TP}$ quirky subjects
(71) Mér/Þeim er kalt.
me$_{DAT}$/them$_{DAT}$ is cold

There is a poorly understood variation regarding quirky subjects (English disallows them). One of the reasons is that, as Poole (2015) notes, quirky subjects crosslinguistically do not behave uniformly regarding Zaenen et al's (1985) tests. I will take the possibility of binding subject-oriented anaphors as a diagnostic for true quirky subjects. This enables us to finally shed light on what is behind the relevant crosslinguistic variation. More precisely, a new generalization then emerges regarding the availability of quirky subject constructions. A typological survey of the literature reveals that quirky subjects are allowed in Icelandic, Faroese, Laz, Kannada, Korean, Malayalam, Spanish, Telugu, Japanese, Tamil,

[15]See Bošković (2023a) for more detailed discussion. The effect here may be stronger than the wh-island case in (52). This is not surprising: it has often been observed that movement of null elements yields a stronger violation than that of corresponding overt elements (e.g. Bošković 2004), to the point that in some cases such movement is even clause-bounded (Stowell 1985).

Imbabura, Polish, Georgian, Russian, Basque, Old French, Marathi, Guajarati, and Hindi. What these languages have in common is that they all allow *pro*-drop (full or partial). This then leads to the new generalization in (72) (with binding of subject-oriented anaphors taken as the relevant diagnostic):

(72) Quirky subjects are allowed only in *pro*-drop languages.

(72) indicates that *pro*-drop is required for quirky subjects. Why is that the case? This can be captured if quirky subjects are not located in the same position as regular agreeing subjects (i.e. SpecAgrsP). *Pro* would then be needed for the regular subject position to satisfy the EPP (it would be an expletive *pro*), hence only *pro*-drop languages would allow quirky subjects.

There is an alternative (where quirky subjects themselves satisfy the EPP) if in *pro*-drop languages there is no separate AgrsP; rather, T has φ-features in such languages (this would essentially be T that is strong enough to label in Chomsky 2015). The suggestion is that quirky subjects cannot go to SpecAgrsP (for relevant but different discussion see Citko et al 2018), so only languages without AgrsP can have quirky subjects and only *pro*-drop languages are like that. The suggestion that T can have φ-features only in *pro*-drop languages, which are typically morphologically rich,[16] in a way recasts Chomsky (2015); it is not a weakness for labeling that is the result of morphological "deficiency" (as in Chomsky 2015) though but the need for AgrsP. In English, agreement is not morphologically rich, so AgrsP is needed; in Italian (corresponding to Chomsky's strong T), this is not the case, so there is no need for AgrsP.

Regarding two ways of treating quirky subjects noted above, an issue arises under the *pro*-in-SpecAgrP analysis. Quirky subjects do undergo movement, which would now be to SpecTP. If there is a *pro* in AgrsP that satisfies the EPP, why would they need to move to SpecTP? It appears that under this particular analysis we need to appeal to accounts where quirky subjects have a structural case in addition to the morphologically overt case, with that structural case requiring movement, as in Bošković's (2007) system. On the other hand, under the analysis where T has φ-features in the relevant languages, and AgrsP is lacking, movement of quirky subjects can be taken to take place for EPP reasons.

Let us compare more closely the latter, T-with/without-φ-features account with Chomsky (2015). In Chomsky (2015), T has φ-features in all languages but there are languages with weak and strong T, where weak T needs a Spec. The current analysis also has a two-way split, the main difference being that while Chomsky's weak T (i.e. its projection) simply needs to undergo another merger after it enters the structure, what corresponds to it in the current analysis more specifically needs to merge with Agr. T which has φ-features need not merge with Agr, T which does not have φ-features needs to merge with Agr. In other words, one way or another, φ-features need to be represented in the structure.

An alternative way of looking at all this is the following: finite T has φ-features in <u>all</u> languages (as Chomsky assumes); the relevant difference is whether or not these φ-features need to be checked against an Agr head. If they do, an Agr head needs to be present in the structure.[17] There is another option where T still always has φ-features. Saito (2012) argues heads can be base-generated in an adjunction structure, in which case one of them excorporates, undergoing head-movement. Somewhat similar is a proposal in Martinović (2015), where a head X is generated with features F1, F2… Some of these features can move out to project a phrase on their own. Applying a version of these approaches to the current proposal, T would always start with φ-features, in some languages (those that don't have *pro*), φ-features would ex-corporate, projecting AgrsP. In those languages Agrs is the locus of the EPP effect (putting aside A/A'P).

[16]But see Jaeggli and Safir (1989), who suggest that such languages either have rich agreement or no agreement—for ease of exposition and the sake of comparison with Chomsky (2015), like Chomsky (2015) I ignore the latter below (*pro*-drop languages like Japanese, which lack agreement, will actually receive a somewhat different treatment in section 8). At any rate, the difference here is whatever is taken to be relevant to *pro*-drop.

[17]A way to implement this is in terms of whether φ-features are strong enough to project as "part" of T, under the assumption that they do need to project. There are two options: both tense and φ-features project, or only tense features project—in the latter case an Agr head needs to merge into the structure.

So, under the T-always-with-φ-features account, there is still a similarity with Chomsky (2015) in that languages differ in the properties of T, but the account is still rather different from Chomsky (2015).

Above, I suggested agreeing preverbal subjects like *Mary* are in SpecAgrsP (70). It appears that under what was said in the preceding passage, this would not be the case in *pro*-drop languages like Spanish. However, all we need to keep this suggestion for Spanish is to optionally allow φ-excorporation from T in such languages. The idea here is that in languages like English, due to their morphological properties, such excorporation must take place. In languages like Spanish, the morphology does not require it, but nothing prevents it from taking place. Quirky subjects are incompatible with AgrsP, they are located in SpecTP. I suggest that agreeing nominative subjects are incompatible with SpecTP, if they move preverbally they must then be located in SpecAgrsP. Agreeing preverbal subjects are then always in SpecAgrsP. Quirky subjects, on the other hand, are in SpecTP. In languages like English, there is always SpecAgrsP. In languages like Spanish, it is there with agreeing preverbal subjects, otherwise it is not.

Some Spanish-style languages show a rather dramatic agreement difference between pre and postverbal subjects. In Trentino and Fiorentino only preverbal subjects agree; postverbal subjects don't agree, resulting in default V-morphology. The difference is not surprising under the current approach: AgrsP must be present for agreement to be morphologically manifested in Trentino and Fiorentino (cf. also fn 26).

The suggestion that in languages like Spanish and Icelandic (see section 8 for languages like Japanese, which lack agreement), AgrsP is present when there is an agreeing preverbal nominative subject, but not otherwise, i.e. not with quirky subjects, provides a new perspective on the well-known Icelandic subject anaphor paradigm in (73). Icelandic in principle allows subject anaphors in subjunctive clauses, but not always. This is possible in (73b), with a quirky subject, but not in (73a), with a nominative subject.

(73) a. *Jón$_i$ segir að sig$_i$ elski Maríu.
John says that REFL$_{NOM}$ love$_{SUBJ}$ Mary (Rizzi 1990b:33)
b. Hún$_i$ sagði að sér$_i$ þætti vænt um mig.
she said that REFL$_{DAT}$ was$_{SUBJ}$ fond of me
'She said that she$_i$ was fond of me.' (Maling 1984:216)

There is a line of research that treats subject anaphors of this sort in terms of an anti-agreement effect (Rizzi 1990b). The above suggestion regarding when AgrsP is present provides a new way of implementing an analysis along these lines for (73), where the agreement effect in (73) is about the presence vs absence of AgrsP, with AgrsP necessarily lacking with subject anaphors. Given the above discussion, AgrsP is present in (73a), but not (73b). A subject anaphor is then only possible in (73b). Note also that there is a nominative element in (74). However, given the above discussion, there is still no AgrsP in (74) (it is there only with preverbal agreeing subjects), hence a subject anaphor is also possible here.[18]

(74) Hún$_i$ sagði að sér$_i$ líkuðu bíómyndirnar.
she said that REFL$_{DAT}$ liked movies.the$_{NOM}$
'She said that she liked the movies.' (Gísli Rúnar Harðarson, p.c.)

More straightforward candidates for quirky subjects in SpecTP are cases of reduced non-agreeing clauses with non-nominative subjects. One such case concerns Russian infinitives with dative subjects:[19]

[18]It is not my intention to provide a full account of the distribution of this anaphor, which is very complex (see Maling 1984, Pesetsky 2021); it also has clear logophoric usages—when the closest or clause-mate subject is not the binder it may in fact be a logophor, and some cases with a nominative object anaphor may actually involve the anaphor causing a Condition B/C violation, or resisting logophoric usage. At any rate, I confine myself to discussing the subject anaphor, the goal being simply to point out a fresh perspective on it under the current approach to quirky subjects, where in such cases AgrsP is lacking.

[19]Cases similar to (75a-b) are often treated as biclausal, with a null copula and the dative as the subject of the null copula rather than the infinitive, where the evidence for this treatment is the copula surfacing in the past tense (the present tense copula is null in Russian). This, however, will not work for (75a-b), where the copula is not possible in the past tense (**Mne bylo vxodit'* and **Ivanu bylo žit' odnomu, bylo* being the copula). It also does not work for infinitival imperatives like (75c).

(75) a. Mne vxodit'? b. Ivanu žit' odnomu. c. Vsem nemedlenno zakryt' učebniki!
me$_{dat}$ to.enter Ivan$_{dat}$ to.live alone all$_{dat}$ at.once to.close textbooks
'Am I to enter?' 'Ivan should live alone.' (Ksenia Zanon, p.c.)

(75) involves regular infinitives, involving no agreement (so it is nothing like inflected infinitives in languages like Portuguese). What is 'irregular' about it is that it has an overt quirky-like subject in dative case instead of PRO. A plausible treatment of such constructions is to treat the infinitive as a TP (with AgrsP missing), with the dative subject in SpecTP (see Franks 1995 for a suggestion along these lines).

Icelandic ECM infinitives can also have quirky subjects (see e.g. Zaenen et al 1985); if ECM infinitives are TPs such cases would also have a quirky subject in SpecTP.

5. V-2 subject/non-subject asymmetries in Germanic V-2 languages

All this can be extended to a lot of constructions/issues, e.g. V-2 asymmetries. There is a controversy regarding whether subject V-2 clauses in Germanic are CPs or IPs: subject V-2 clauses (76)/(79a) in several respects differ from non-subject V-2 clauses (77)/(79b), which was used to argue that they are IPs (Travis 1991, Zwart 1993), but they are also not exactly the same as regular IPs in (78) and their subject has different properties from both the subject in (78a) and (78b), where the subject is clearly in SpecIP, which was used to argue that subject-initial V-2 clauses are CPs (Schwartz and Vikner 1996).

(76) Subject V…
(77) Non-subject V ….
(78) a. [$_{CP}$ that [$_{IP}$ Subject….V]] b. [$_{CP}$ Non-subject V [$_{IP}$ subject…]]
(79) a. Das Kind hat das Brot gegessen. b. Das Brot hat das Kind gegessen.
the child has the bread eaten the bread has the child eaten
'The child has eaten the bread.' (German)

We will see that the apparently contradictory data actually indicate that the subject in subject V-2 clauses is lower than SpecCP but higher than SpecIP, which can be captured if it is located in SpecA/A'P.

Subject/non-subject V-2 asymmetries have been used to argue that the subject in subject V-2 clauses is in SpecIP. Consider C-agreement in Dutch. In (80), the subject and the verb are clearly not in CP.

(80) dat-**e** **wij** speul-**t** (East Netherlandic)
that-1pl we play-1pl (Zwart 1993)

In non-subject V-2 clauses the verb in C bears C-inflection, not the usual V-inflection (81a). However, in subject V-2 clauses, the verb shows V-inflection, not C-inflection (81b), which suggests the verb and the preceding phrase are not in the same position in subject and non-subject V-2 clauses, i.e. (76) and (77).

(81) a. Wat speul-**e**/*speul-**t** **wij**? b. Wij speul-**t**/*speul-**e**.
what play-1pl we we play (Zwart 1993)

A number of phonologically weak elements also show non-subject/subject V-2 assymetries. Thus, object pronouns in Dutch cannot cliticize to V in the former, but can in the latter (Zwart 1993). Additionally, subject and non-subject V-2 clauses differ in that the initial pronominal element can be reduced in the former but not the latter, which was argued to indicate a structural difference between subject and non-subject V-2 clauses (the initial element is not in the same position in (82a) & (82b), i.e. (76) & (77)).

(82) a. **Ik/'k** zie hem (subject V-2) b. **Hem/*'m** zie ik (object V-2)
I see him him see I (Zwart 1993)

A similar point can be illustrated with the weak pronoun *es* in German (the same form for subject/object).

(83) a. Das Kind/**es** hat das Brot gegessen. b. Das Brot/***es** haben die Kinder gegessen
the child/it(the child) has the bread eaten the bread it(the bread) have the children eaten
'The child has eaten the bread.' (Travis 1992)

The above patterns have been used to argue that subject V-2 clauses (see (76)) are structurally different from non-subject V-2 clauses (see (77)), in particular, that the former are IPs, with the subject in SpecIP, while the latter are CPs, as standardly assumed.

Schwartz and Vikner (1996), however, give cases where subjects in subject V-2 clauses (76) do not behave like subjects that are clearly in SpecIP (78a-b), which are problematic for the IP analysis. Thus, the two differ regarding adverb placement. In particular, adverbs that can precede the subject in (78a-b), which is clearly located in SpecIP (see (84a-b)), cannot precede the subject in (76) (see (84c)), the adverb also cannot precede the object in (84b)), suggesting that the latter is higher than the former.

(84) a. Ich weiß, [$_{CP}$ daß letzte Woche [$_{IP}$ Peter tatsächlich ein Buch gelesen hat]]
I know that last week Peter actually a book read has
b. [$_{CP}$ Dieses Buch hat letzte Woche [$_{IP}$ Peter tatsächlich gelesen]]
this book has last week Peter actually read
c. *Letzte Woche [$_{?}$ Peter hat tatsächlich ein Buch gelesen]
last week Peter has actually a book read (Schwartz and Vikner 1996:12-13)

Also, the non-subject and the subject in (77) and (76) block extraction while the subject in (78a-b) does not, another case where the subject in subject V-2 clauses patterns with the non-subject in non-subject V-2 clauses, and differently from subjects that are clearly in SpecIP. (This can be seen when the relevant clauses are embedded, see Schwartz and Vikner 1996 for the data; note that the blocking effect is a bit weaker with the context in (76) than (77), as expected given the above discussion).

Furthermore, while (82)-(83) show that there are cases where a weak subject in subject V-2 clauses behaves differently from a similar non-subject in non-subject V-2 clauses, which suggests these elements are not located in the same position, there are also cases where a weak subject in a subject V-2 clause behaves differently from a weak subject that is clearly in SpecIP, suggesting these two are not in the same position either. Thus, unstressed expletive pronouns in German, Icelandic and Yiddish can occur in subject V-2 clauses (85), but they cannot occur in SpecIP (86) ((86) is acceptable without the expletive).

(85) a. Es ist ein Junge gekommen. (German) b. Það hefur komið strákur. (Icelandic)
there is a boy come there has come (a) boy
(86) a. *Gestern ist es ein Junge gekommen. (German) b. *Í gær hefur það komið strákur. (Icelandic)
yesterday is there a boy come yesterday has there come (a) boy
(Schwartz and Vikner 1996:20)

This three-way contrast in the distribution of weak elements suggests that the subject in subject V-2 clauses is not located in either SpecCP or SpecIP, which is indeed the case under the current analysis. In particular, the reasoning employed regarding the contrast in (82a) and (82b) which was used to argue that the subject in the subject initial V-2 clause is not in SpecCP, given that the initial element in (82b) is clearly in SpecCP, when extended to (85) and (86) should be taken to indicate that the subject in the subject initial V-2 clause is not in SpecIP either, given that the subject in (86) is clearly in SpecIP.

Putting it all together, subject V-2 clauses are not like non-subject V-2 clauses, but the subject of subject V-2 clauses is also not like subjects that are clearly located in SpecIP. The required three-way distinction is straightforwardly captured under the current account: the subject in subject V-2 clauses is in a position that is lower than SpecCP but higher than SpecIP—SpecA/A'P. (The initial element is still in a different position in (81b) & (81a) as well as (82a) & (82b), and (83a) & (83b). However, the subject in (84c) & (85) is also in a different position from the subject in (84a-b) & (86). The current analysis thus reconciles the data which have been used to argue against the CP treatment of subject V-2 clauses and the data which have been used to argue against the IP treatment of subject V-2 clauses. The seemingly contradictory data are all rather straightforwardly captured, and reconciled, under the current analysis.

Another otherwise puzzling paradigm from Vikner (1995) falls into place, in a way that also confirms the mixed A/A'-status of the relevant subject position. Icelandic and Yiddish allow CP recursion. Al-

though CP recursion is in principle allowed, wh-movement across a V-2 topic in (87) is not acceptable. Vikner argues this is due to relativized minimality (RM): (87) involves A'-movement across an A'-Spec.

(87) a. *Helgi hefur keypt bók, [OP sem trúlega hefur Jón ekki lesið]
Helgi has bought a book that probably has Jón not read (Icelandic)
b. *Ikh veys nit ven in tsimer iz di ku geshtanen
I know not when in room is the cow stood (Yiddish)

Interestingly, subject wh-movement across a V-2 topic is allowed.

(88) a. Flokkur OP sem [um fjögurra ára skeið hefur verið í stjórn] tapaði kosningunum
a party that in four years' course have been in government lost election-the
'A party which had been in government for four years lost the election.' (Icelandic)
b. Zi iz gekumen zen ver frier vet kontshen
she is come see who earlier will finish (Yiddish)

Vikner leaves this as an open issue, noting that (88) should also be ruled out via RM. The current system provides a new perspective on this contrast. In both cases we are dealing with traditional CP recursion (89). YP is clearly an A'-Spec. With object wh-movement, XP is also clearly an A'-Spec, resulting in A'-movement across an A'-Spec. However, under the current analysis, with subject wh-movement XP is actually a mixed A/A'-position, which may enable that movement to evade the RM effect.[20]

(89) [$_{CP}$ XP [$_{CP}$ YP [

Interestingly, Vikner notes that (87) also contrasts with (90), where the element in the lower Spec is an expletive (this also holds for Yiddish). While Vikner (1995) treats the expletive in (90) as being in SpecCP (taking (86) to indicate that it cannot be in SpecIP), noting the problematic nature of (90) under that assumption, I have suggested above that this expletive is actually located in SpecA/A'P. That can then help us explain the contrast between (87) and (90): while (87) involves A'-movement across an A'-Spec, this is not the case in (90), where the crossed Spec is also an A-Spec.[21]

(90) Jón vissi ekki hvernig það hefðu komist svona margir í mark.
Jón knew not how there had come so many in goal (Icelandic)

5.1. English vs German

We have seen SpecA/A'P can be interpreted as +wh in English. It, however, cannot be interpreted as a topic, since subject topicalization (**Al$_i$, t$_i$ left)* is not possible (see section 7). A subject topic, then, cannot be located in SpecA/A'P in English (which means it cannot satisfy the EPP there). This is, however, not the case in German, in particular in subject V-2 clauses. In German, a topic apparently can be located in SpecA/A'P, this is why short subject topicalization is possible. The English/German contrast may be related to inversion: there is inversion with topicalization/V-2 clauses in German, but not English ('her, he likes' in English vs 'her likes he' in German). To account for this, I tentatively suggest that at least in Germanic, inversion is needed to make low left periphery part of the EPP domain. In such cases, A/A'P has the usual φ-features and one A'-feature (recall (see fn 12) that what I am referring to as A/A'P doesn't always have the same feature properties). If that feature causes inversion the A'-subject can move there (the EPP is then satisfied there), in German +Top does it, in English it doesn't. This may be why **Al$_i$, t$_i$ left* is not possible in English.There is an alternative. It is possible that inversion is required only for the topic interpretation. The intuition here is rather straightforward. Subjects typically (i.e. in the default case) receive a topic-like interpretation (they are what the sentence is about, see Rizzi 2006). This means a subject in the regular subject position, SpecIP, can receive a topic interpretation (see Lacerda 2020).

[20]The phrasing in Vikner (1995) ("seem to be well-formed") suggests that examples like (88) maybe a bit degraded, which would not be surprising from the current perspective (Vikner was simply concerned with the contrast between (88) and (87)).
[21]This means that in a traditional CP recursion, A/A'P can be either the higher or the lower Spec—in (88) it must be the higher Spec due to the selectional requirement of the verb/relativization (the wh-phrase/Op must be in the highest Spec).

Interpretation itself then wouldn't suffice to indicate that a topic subject has moved to SpecA/A'P.[22] This may be why inversion is needed in this case (it is not needed always—essentially, inversion can make low left periphery part of the EPP field, but, as we will see below, only if there is nothing in SpecAgrsP).

6. PolP rescuing effect

It is well-known that adverbs, which have been argued to be located in SpecPolP in such cases, can rescue *that*-trace effect violations, as in (91a). Topics, on the other hand, cannot do that, as (91b) shows.

(91) a. Who do you think that under no circumstances would fire Mary?
b. *Who$_i$ did Robin say that this present, t$_i$ gave Lee?

PolP and topicalization thus differ regarding the *that*-trace effect. They differ in another respect: There is inversion with PolP, not with topicalization. I suggested above that inversion can make low left periphery part of the EPP domain. This may be exactly what is happening in (91a). Inversion (cf. *under no circumstances would Ann leave*) makes PolP part of the EPP field, which means the adverb satisfies the EPP. The subject then need not go through the Spec of the EPP field to satisfy it in (91a).[23] Such movement is still needed in (91b) (see section 5.1). The underlying assumption is that the *that*-trace effect arises if the subject moves to the EPP-satisfying position before moving to the Spec of *that*. Under the analysis suggested above, this is the case in (91b) as well as the standard *that*-trace effect (**who do we say that left),* but not (91a). This suggestion may also provide an account of the contrast in (21) since it provides a rather different treatment of the two examples. In (21a), there is a subject in SpecAgrsP—I assume that whenever this is the case the subject satisfies the EPP (this is in fact the case in all examples discussed in the paper), which means PolP is not part of the EPP domain here (the suggestion is that inversion can make low left periphery part of the EPP domain only when there is nothing in SpecAgrsP, see also fn 23). In (21b), on the other hand, PolP can be part of the EPP domain. (21a) can then be ruled out either because it involves A'-movement across a pure A'-Spec or, alternatively, if wh-C cannot take A'-PolP as its complement. Neither issue arises in (21b): there is no crossing of a pure A'-Spec and there is no C taking an A'-PolP complement (PolP is mixed A/A'). Where is *who* then? It may exceptionally move to SpecCP (the wh-C would still not be taking an A'-PolP complement), or we may be dealing with multiple Specs of the same head, PolP, given that PolP is in fact A/A'P here (so object wh-movement couldn't target it). Alternatively, the adverb may simply be pushed lower here, with no PolP present. Note in this respect *Amy under no circumstances should ever hire Jon*, where *Amy* is in SpecAgrsP, hence the adverb must be lower. All this also extends to (22): regarding (22b), note *Amy should under no circumstances ever hire Jon* is also acceptable. As for (22a), the accounts of (21a) extend to (22a), with another option available: it is possible that inversion away from PolP is not allowed when PolP is a pure A'-projection.

7. Locative Inversion and related constructions

I now turn to locative inversion (LI). As is well-known, LI PPs show a number of subject properties, e.g. subject-raising (92a) and the lack of WCO effects (LI (92b) contrasts with topicalization in (92c)).

(92) a. On the wall$_i$ seemed [t$_i$ to be hanging a picture of John].
b. Into every dog$_i$'s cage peered its$_i$ owner.
c. cf. *Into every dog$_i$'s cage its$_i$ owner peered.

They also show some non-subject properties: they block the extraction of lower elements (93a-b) and disallow inversion to C (93c).

(93) a. ?*Which horse do you think that out of the barn ran?
b. ?*Who do you think that on this wall hung [a picture of t]?

[22]Note that inversion would be irrelevant to subjects discussed in section 7, which also cannot move to SpecAgrsP (see below).
[23]I suggest only wh-phrases undergoing wh-movement can avoid moving to SpecAgrsP, which can be related to them being non-nominal (see below). The issue, however, may be more general with wh-phrases in this context—even wh-phrases that don't undergo wh-movement cannot be in SpecAgrsP below PolP (**who thinks that under no circumstances would who leave)*

c. *Did on the wall hang a picture of John?

They also disallow inverse scope (Kuno 1971), like A'-moved subjects and in contrast to regular subjects.

(94) On some stage stood every actress. ∃ > ∀, *∀ > ∃

These properties are all captured under (95), where LI subjects move to a higher subject position than the regular subject position, where this higher position has mixed A/A' properties, hence it also blocks A'-movement.[24] Furthermore, since LI subjects are higher than regular subjects inverse scope is not allowed. As for inversion, if it is Agrs+T that undergoes it the intervening A/A'-head would block it.[25]

(95) [$_{A/A'P}$ LI$_i$ [$_{AgrsP}$ Amy [$_{TP}$ quirky subject

Note that the higher position cannot be the Topic position; it must be a distinct position, as indicated by the WCO contrast in (92b-c). Also, local subject topicalization is disallowed in English, as Lasnik and Saito (1992) show. Thus, (96a) shows that a topicalized anaphor can get an antecedent from a higher clause; if short-subject topicalization were allowed the subject in (96c) should be able to undergo topicalization and get an antecedent from the higher clause, on a par with the topic in (96a).

(96) a. John thinks that himself, Mary likes. b. cf. *John thinks that Mary likes himself.
c. *John thinks that himself likes Mary.

It should be noted that there is a debate in the literature regarding whether LIs are subjects or topics, due to the conflicting data regarding this issue (e.g. (92) vs (93)-(94)). As in the case of subject V-2 clauses, the conflicting data are reconciled under the current analysis, in a way that also does not require positing a null expletive (which topic analyses need to) in a non-*pro*-drop language like English.

Regarding the domain approach to the EPP, all the projections from (95) belong to the EPP domain: the EPP requirement is satisfied in the highest projection present in Split IP. Furthermore, as discussed above, under the current approach to Split IP, non-nominative subjects do not move to SpecAgrsP. Since the EPP is satisfied in the final position of LI, the LI need not pass through SpecAgrsP.

Further, it has been argued that there is a QP above wh-DPs undergoing wh-movement (Cable 2010) and that there is a similar projection above all phrases undergoing traditional A'-movement (see Yoo 2018, Bošković 2023b, so there is a topic/focus counterpart of QP with DPs undergoing topic/focus movement). This means that elements undergoing traditional A'-movement are in fact not DPs/nominals. In light of this, the right generalization may then be that non-DP/nominal subjects cannot move to SpecAgrsP, which is in fact what Bošković (2023b) argues for based on the system developed here.[26]

This easily extends to clausal subjects (*[that he left] is likely)*, which also show mixed subject properties, with a similar debate based on conflicting data (e.g. (97) vs (98)) as with LI (e.g., Stowell 1981 treats them as topics (this requires a null ex given the impossibility of subject topicalization) and Bošković 1995 as subjects). The conflicting data can be reconciled if they are treated as SpecA/A'P subjects.

(97) [That John likes Mary] seems to be surprising.
(98) *Is [that John likes Mary] likely?

[24]There may be crosslinguistic/construction-specific differences regarding the strength/presence of the blocking effect of elements in SpecA/A'P on A'-movements; for relevant discussion, see fn 34.

[25]I assume inversion in yes-no questions targets the higher wh-head, C. Inversion is not blocked with focalized elements, like *only*-DPs (56). It seems natural to assume inversion is related to the wh-feature. Under Roberts' (2010) theory of head movement we can assume that through C-Agrs/T association (Chomsky 2008) C gives the relevant feature to Agrs/T, which triggers head-movement (Roberts 2010). With LI, the intervening A/A' head disrupts the association. This doesn't happen if the head is +focus, given the wh/focus relation (this is similar to Multiple Agree, X can Agree with Y across Z if it also agrees with Z)

[26]As for crosslinguistic variation regarding agreement with moved subject wh-phrases, which is found in e.g. English/Standard Italian but not Kinande/Trentino/Fiorentino, one possibility is that we are dealing here with Agree probing (English) vs Spec-head agreement (Kinande), where the latter requires location in SpecAgrsP, which is not an option for moving wh-phrases.

The discussion of LI and clausal subjects can be extended to (at least some) *there*+V constructions.

(99) There arrived a woman at that station.

For most speakers, *there*+V constructions differ rather significantly from *there+be* constructions. There is a locality effect ((100); Hartmann 2011 shows it's the same as with LI) and inversion is degraded (101).

(100) a. ?*How many women do you think that there arrived at that station?
b. *Who do you think that there appeared a picture of in the Daily Telegraph?
(101) ?*Did there arrive a woman at that station?

There in the *there+be* construction does not show these effects ((102)-(103), cf. also (14)).
(102) How many women were there in the garden?
(103) ?Who do you think that there was a picture of on the table?

This can be captured if *there* in (99) is in SpecA/A'P, on a par with LI. There is a controversy about whether subject *there* is nominative (compare e.g. Chomsky 1995 with Lasnik 1995a, Bošković 1997). From the current perspective, where non-nominative subjects cannot be in SpecAgrsP, both sides of the debate may be correct, with the different patterns in *there+be* and *there*+V attributed to the different properties of *there* (*there* not being nominative in the latter; for another perspective, see Hartmann 2011).

There are other phenomena where LI, clausal subjects, and *there*+V pattern together (and differ from *there+be*), which further argue for a uniform treatment of these constructions. One is ECM.

(104) ?*You believe [under that table] to be hiding two kids.
(105) ?*You believe [that we like Jon] to be unlikely.
(106) ?*You believe there to have arrived a woman at that station.
(107) You believe there to be five animals in this zoo.

For-infinitives provide another relevant case. *There* in *there*+V and *there+be* constructions behaves differently regarding *for*-infinitives, with LI and clausal subjects patterning with the former.[27]

(108) a. For there to be someone in that station would be unlikely.
b. *For there to arrive someone at that station would be unlikely.
(109) *For [under the table] to be hiding two kids would be unlikely.
(110) *For [that John will be fired] to be acceptable is unlikely.

To sum up the discussion so far, agreeing/nominative subjects (like *Amy*) are in SpecAgrsP, non-nominal and traditional locally A'-moved (they are also non-nominal) subjects are in the Spec of a higher phrase, and quirky subjects are in SpecTP. The EPP is satisfied in the highest projection present in this domain.

Under this analysis, a question arises concerning the status of wh-in-situ subjects, as in *who thinks that who left*, in particular, whether they are located in SpecA/A'P or not. The *hell*-test suggests they are not located in SpecA/A'P. (111) indicates that both wh-phrases in SpecCP and wh-phrases in SpecA/A'P are compatible with *the-hell* modification, while wh-phrases that are clearly in-situ (i.e. located in a position that is not associated with any A'-features) are not compatible with it. Given this, (112) suggests

[27]As for elements suggested above to occur in focus A/A'P, the ECM test is irrelevant given that ECM-ACC is licensed by object shift to the higher clause (e.g. Bošković 1997) since they do not stay in the infinitive (the issue of whether there is a middlefield counterpart of A/A'P may then be relevant, see fn 36; note, however, that some speakers find *I believe nobody to like everyone* somewhat degraded). In fact, (104)-(105) improve under A'-movement (*?under that table you believed to be hiding two kids* and *that we like Jon you believed to be unlikely*), which is not surprising given that wh-traces need case hence there would be object shift out of the infinitive here. (i) is interesting though. Most speakers find it fine, but inverse scope seems to be more accessible here than in (63). For the speakers with this pattern, there would be no A/A'P in (i) hence *nobody* would not move higher up (for them, it would move only where A/A'P can be present), making it easier to get inverse scope.
(i) For nobody to like everyone would be surprising.

that wh-subjects-in-situ, at least in English, are not located in SpecA/A'P. (This means the non-nominal projection above wh-DPs discussed above is present only under wh-movement, as in Yoo 2018).[28]

(111) a. Who the hell bought that house? b. What the hell did Mary buy? c. *Who bought what the hell?
(112) *Who thinks that who the hell left?

A note is now in order about quirky subjects regarding languages where they are somewhat but not fully 'subjects'. One possibility is that those quirky elements are actually in SpecA/A'P (see Bošković 2023b, who argues (regarding Serbo-Croatian) that such quirky subjects are in fact PPs, fitting the claim that SpecA/A'P is a position for non-nominal subjects). Recall quirky elements crosslinguistically do not behave uniformly regarding the Zaenen et al (1985) tests, which means a simple subject/non-subject cut is not enough. The above analysis provides a tool for capturing the variation in passing quirky subject tests, given that it provides options for the location of actual quirky subjects, SpecTP and SpecA/A'P.

There are many other candidates for SpecA/A'P, e.g. quotative inversion and subject topics of Singlish no-agreement constructions (113) (see Lee 2022, 2023 on the latter). As Lee shows, the subject of Singlish no-agreement constructions is incompatible with topicalization (114); just like topicalization, it is subject to a definiteness restriction (115) and cannot occur under verbs like *regret,* which disallow topicalization (116). This topic status of the subject in (113) makes it a natural candidate for SpecA/A'P.

(113) Mr. Wu know Mary.
(114) *Mary, Mr. Wu know.
(115) a. *A horse love apples.
b. The girl/*a girl Mr. Wu knows.
(116) a. *John regrets that he know Mary.
b. *John regrets that Mary, he knows. (Lee 2022)

Recall also the scope paradigm discussed above, repeated below, where (118)-(119) indicate that subjects in SpecA/A'P disallow inverse scope, in contrast to subjects in the regular subject position (117). Importantly, Singlish non-agreeing subjects also disallow inverse scope (120) (see Lee 2022).[29]

(117) Someone loves everyone. $\exists > \forall, \forall > \exists$
(118) Who loves everyone? $wh > \forall, *\forall > wh$
(119) On some stage stood every actress. $\exists > \forall, *\forall > \exists$
(120) Someone love everyone. $\exists > \forall, *\forall > \exists$

The A/A'P account of non-agreeing Singlish subjects may also be appropriate for Chinese (the Singlish construction in question in fact represents the influence of the Chinese languages, see Lee 2023), given that Chinese subjects are also subject to a topic-like discourse effect, namely a specificity requirement, and disallow inverse scope.[30] The issue is discussed below, in a way where the lack of agreement in the Singlish construction in question is not an accident but crucial to its A/A'P treatment.

At this point it should be noted that there is a potential alternative where our SpecA/A'P would actually be a somewhat different SpecTP, i.e. SpecTP with an A'-feature (perhaps getting that feature from C via Chomsky's 2008 C-T association). Another option could be that the A/A'P cases involve CP/TP conflation (see in this respect Aldridge 2022). However, due to the lack of a height difference that the current proposal provides, such analyses could not account for scope contrasts noted above, like the contrast regarding inverse scope between (61) & (62) (see also (63), (94)). The same holds for Q-float in (15), i.e. the contrast between (15a) and (15b), given that WUE allows Q-float under A'-movement. The blocking effect on

[28]There may be some language variation here. HKSL allows *John thinks that who left Mary* (see Gan 2022). Given the discussion of HKSL in section 3.3.2, *who* should be located in the SpecA/A'P of the embedded clause.
[29]As Lee (2023) shows, Singlish non-agreeing subjects can also be focus (which is fine with being located in SpecA/A'P, as discussed in section 3; note that this is also a discourse effect, which is relevant to the discussion below).
[30]Chinese has a rich (multiple) topic field so the issue of incompatibility with topicalization would not arise there.

inversion is also an issue for the SpecTP analysis ((93c), (98), (101); this is less clear for the C-T conflation analysis, though it is hard to make this analysis sensitive to different A/A' constructions behaving differently regarding inversion, cf. (56)). Another issue for the SpecTP analysis concerns the C-marking data where a 'C' follows the subject, as in e.g. (31b). Furthermore, Icelandic/Yiddish examples like (88) are problematic for both analyses since they would require a TP, or a conflated TP, to precede a CP.

The strongest evidence against these alternative analyses may come from patterns like those discussed regarding Germanic V-2 in sec 5, where we have seen that there is a three-way height distinction between non-subjects undergoing A'-movement to SpecCP, subjects undergoing local A'-movement, and subjects in SpecIP, where subjects undergoing local A'-movement are lower than non-subjects undergoing A'-movement to SpecCP but higher than subjects in SpecIP (more precisely, the subject in subject V-2 clauses is in a position that is lower than SpecCP but higher than SpecIP). This can be captured under the current analysis, which provides a three-way height distinction, but not on the alternative analyses considered here, which maintain the two-way distinction of a simple SpecCP vs SpecIP analysis.

8. Lack of agreement

In this section, I will explore some possibilities regarding languages that lack agreement, like Japanese. There is a long-standing tradition, going back to Kuroda (1988) (for more recent work see e.g. Saito 2007), that treats such languages as structurally/syntactically different from languages like English—the lack of agreement then is not a superficial PF difference. The possibility to be explored is that in such languages, due to the lack of agreement there is no AgrsP or AgrsP is defective—it cannot have a Spec so the regular subject needs to go somewhere else, in particular SpecA/A'P.[31] Interestingly, Saito (2010, 2011) argues that the subject in Japanese is higher than in English, one of his arguments involving constructions like (121), which is ambiguous in English, but not in Japanese, where the subject has to scope over negation (122), suggesting that the Japanese subject is higher than the English subject.[32]

(121) Everyone didn't take the exam.

(122) zen'in-ga sono tesuto-o uke-nakat-ta.
all-NOM that test-ACC take-NEG-PST
'All did not take that test.' *not >> all, all >> not (Miyagawa 2003)

To account for this, Saito argues the Japanese subject is higher than TP (the English subject is in SpecTP). More precisely, he argues that the EPP satisfying position in Japanese is a low head in the left periphery (he calls it Pred). This nicely fits the above suggestion (and the current system), where the relevant subject position would be SpecA/A'P. Even more interestingly, Saito suggests the reason why the EPP satisfying position in Japanese is higher than in English is the lack of agreement in Japanese, which is exactly the suggestion made above. This could be tied to another peculiarity of Japanese: multiple subjects. They may be possible in Japanese since the subject is not in SpecAgrsP, which would make the subject unique. More generally, in this language type we may expect subjects to exhibit quirks (which would not be necessarily the same in all languages of this type) that are not found in languages where regular subjects are in SpecAgrsP. One quirk was already mentioned, multiple subject constructions in Japanese.

Another relevant quirk may be the definiteness/specificity effect displayed by Chinese subjects, which is essentially a discourse effect (recall that A/A'P is a mixed inflectional field/left periphery projection).

Another property, shared by Japanese and Chinese, can be straightforwardly explained then: the languages allow subject anaphors, which is often considered to be a property of languages that lack agreement. This can be easily captured under the current analysis even if these languages do have AgrsP:

[31] The lack of agreement may then be responsible for the A/A'P placement of the subject in Singlish no-agreement constructions, which in fact represents the influence of Chinese.

[32] Note this cannot be a result of a general scope rigidity effect—Japanese does not display scope rigidity with respect to right peripheral heads (e.g. Takahashi 2011), in fact in some cases even the subject can scope under negation (if something else satisfies the EPP, cf. (124)). Note also that Chinese patterns with Japanese rather than English regarding examples like (123).

Suppose that the binding domain for anaphors is AgrsP. This seems quite plausible given that even in English, anaphors that are higher than AgrsP can be bound outside of their clause, as in *John thinks that himself, Mary likes*. Japanese and Chinese would then allow subject anaphors for essentially the same reason. Their subject would be outside of AgrsP, like *himself* in *John thinks that himself, Mary likes* and unlike *himself* in **John thinks that himself likes Mary.*

Another property of Chinese and Japanese can be captured under the above suggestion. They are known to have radical *pro*-drop, i.e. *pro*-drop that is not licensed by agreement. K. Zanon (p.c.) suggests that radical *pro*-drop in languages like Chinese and Japanese may be connectable to the lack of AgrsP/defective AgrsP. The intuition here is that if there is no AgrsP (or it is defective) it is not possible to impose the agreement requirement on *pro.* It is worth noting in this respect that Saito (2007) argues that radical *pro*-drop is in fact found only in languages without agreement (like Japanese and Chinese).[33]

Another property of Japanese and Chinese can be captured. In Spanish-style agreement-licensed *pro* languages, overt pronominal subjects are used only when they are focalized, otherwise *pro* must be used. Montalbetti (1984) shows that these overt pronominal subjects cannot function as bound pronouns in Spanish. Thus, *pro* rather than an overt pronoun must be used on the bound variable reading in examples like *Everyone$_i$ claims that he$_i$ is smart* in Spanish. Since overt pronouns in Spanish are focalized, it seems natural to place them in SpecA/A'P under the current analysis. The effect in question may then be connectable to overt pronominal subjects being located in SpecA/A'P (this would not be the case with *pro*). Interestingly, although overt pronouns are not used only when focalized in Japanese, Japanese patterns with Spanish regarding the Montalbetti effect—an overt pronoun cannot be used in the example given above (see Jovović in press, Montalbetti 1984; the same holds for Chinese). This immediately follows if the effect in question is not focus-related but concerns pronouns located in SpecA/A'P, given that Japanese subjects are quite generally located in SpecA/A'P.

9. Non-subjects in SpecA/A'P?

A question now arises whether there are cases where elements other than subjects occupy SpecA/A'P. In this section I tentatively discuss some candidates for such treatment. It has occasionally been suggested for some languages that SpecIP is a mixed A/A' position. Such cases seem to be candidates for a SpecA/A'P treatment, in fact non subject-dedicated SpecA/A'P given that the relevant cases in the literature were generally assumed to involve non subject-dedicated SpecIP. One nice consequence of the current treatment, which may favor it over previous alternatives, is that the proto-typical subject position in the inflectional field can still be considered subject-only (i.e. AgrsP would still be confined to subjects), which was not the case under the previous analyses (for proposals of this kind for various languages, see e.g. Diesing 1990, Finer 1991, Goodall 1991, Rögnvaldsson and Thráinsson 1990, Bailyn 2004, Lavine and Freidin 2002; for relevant discussion see also van Urk and Richards 2015).

One candidate for non-subjects in SpecA/AP concerns Japanese scrambling. Scrambled O in the OSV order shows both A and A'-properties. This can be captured if it is located in SpecA/A'P. Miyagawa (2003) and Saito (2011) in fact argue that this scrambled O can satisfy the EPP in Japanese. In particular, this is the case in (123). Recall the Japanese subject must scope over negation (122), in contrast to English (121), which I interpreted as indicating that the Japanese subject is higher than the English one (following Saito 2011), in particular it is in SpecA/A'P. Importantly, the subject can scope under negation in (123). Following Saito, I suggest that this is because the fronted object in this case actually moves to the EPP-satisfying position, SpecA/A'P, satisfying the EPP (and leaving the subject lower). Japanese may then present a case of a non subject-dedicated EPP-satisfying position, which corresponds to SpecA/A'P.[34]

[33]Singlish non-agreeing constructions also allow *pro*-drop (it is allowed only without agreement, see Sato and Kim 2012).

[34]For Miyagawa (2003), on the relevant reading the object in (124) is in SpecIP, satisfying the EPP there. Saito argues against this analysis by showing that the object in (124) cannot be located in a clear A-position. Thus, the object can be an anaphor coindexed with the subject, which would cause a Condition C violation if the object were in an A-position. The problem does not arise under the current analysis due to the mixed nature of SpecA/A'P—as discussed above, this is not a simple A-position.

(123) sono tesuto-o$_i$ zen'in-ga t_i uke-nakat-ta.
that test-ACC all-NOM take-NEG-PST
'That test, all didn't take.' not >> all, all >> not (Miyagawa 2003)

As noted above, a number of authors have argued for various languages that SpecIP is a mixed A/A' or not a simple A-position, and that it is not confined to subjects. In the current system, this SpecIP with mixed properties can quite generally be SpecA/A'P (with SpecAgrsP, the 'real' subject position, still being subject-dedicated). In fact, it is possible that if for independent reasons, the regular subject position is pushed higher up, into SpecA/A'P, as in the case of Japanese, it will no longer be subject-dedicated.[35,36]

10. Contextuality in general

Above, I argued for a contextual approach to the EPP, where the locus of the EPP is not a single position, but varies depending on the syntactic context. The goal of this section is to place this approach to the EPP within a more general perspective regarding contextuality. Consider first the history of research on locality of movement. In the early bounding approach (Chomsky 1973), the trouble-makers for movement were defined rigidly: NP and IP were bounding nodes regardless of their syntactic context. *Barriers* (Chomsky 1986) were very different but the importance of one difference largely went unnoticed—the contextuality of *Barriers*. One cannot even ask whether e.g. CP in general is a barrier. Its status in this respect depends on the syntactic context that the CP occurs in; in *Barriers,* trouble-makers for movement were defined contextually. Chomsky's (2000) early phase approach went back to the bounding approach in that it defined the trouble-makers, i.e. phases, rigidly: CP and vP are phases regardless of their

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It should be noted that Japanese subjects (or objects in SpecA/A'P) do not have a blocking effect on movement. We have seen above that some subjects in SpecA/A'P have a blocking effect on some A'-movements, which in fact provides evidence that the subject position in question is not a pure A-position. The effect is not expected to hold in all languages of this sort, or for all elements in SpecA/A'P. After all, there is an ill-understood crosslinguistic variation even with regular wh-islands. For the Japanese case, the feature-relativization of RM is particularly relevant. Furthermore, RM effects do not even hold for Japanese with scrambling (Saito and Fukui 1998) and Japanese subjects do not even block superraising, the availability of multiple 'subject' positions being argued to quite generally void intervention effects for Japanese subjects (Ura 1994).

[35]Another case where elements other than subjects may be located in SpecA/A'P concerns Bulgarian multiple wh-fronting (MWF). It has been argued that fronted wh-phrases in Bulgarian are all located in the same phrase, with (ia) involving either multiple CP Specs (e.g. Koizumi 1994, Richards 2001), or adjunction of the second wh-phrase to the first wh-phrase either after the latter moves to SpecCP (Rudin 1988), or before that movement (Grewendorf 2001). At any rate, if the subject wh-phrase in (ib), a multiple question involving a subject and a non-subject, is located in SpecA/A'P, the object wh-phrase would also be in SpecA/A'P. (Alternatively, the subject wh-phrase would be exceptionally located in SpecCP in the MWF example (ib). Note also that standard superiority effects in languages like English are not affected by the current discussion.)

(i) a. Kogo kakvo e pital? b. Koj kogo e vidjal?
whom what is asked who whom is seen
'Whom did he ask what?' 'Who saw whom?'

[36]There is a counterpart of A-movement of subjects with A-movement of objects (stated in terms of SpecAgrsP vs Spec AgroP in early minimalism). Furthermore, it has been argued that there is a counterpart of left periphery in the middle field, i.e. that A'-movements that target left periphery can also land in middlefield (e.g. Belletti 2004, Lacerda 2020). A question then arises whether there is a counterpart of A/A'P in the middle field. This would essentially involve local A'-movement of objects in the middle field of the sentence. Late Archaic Chinese (LAC) object wh-movement discussed in Aldridge (2019) may involve just one such case. The canonical order of LAC is SVO, but wh-objects appear preverbally. Aldridge shows that this wh-fronting lands lower than TP, in particular SpecvP, and that it is limited to DP-objects. This may be the counterpart of A/A'P in the middle field. It is worth noting that Aldridge shows that subject wh-phrases also move in LAC. They move to a higher position than wh-objects, which is, however, still lower than CP. This subject wh-movement appears to be amenable to a SpecA/A'P treatment along the lines of *who left*. LAC may thus instantiate movement to SpecA/A'P both in the (low) left periphery and the middle field of the sentence. Another candidate for a middlefield SpecA/A'P may be what's referred to as object shift in Icelandic, given that it is associated with a topicality/definiteness effect (Diesing 1996). Bound variable readings of pronouns may provide another argument for the middlefield SpecA/A'P. In languages like Spanish and SC, non-clitic object pronouns are used only when focalized, otherwise clitic pronouns are used. Interestingly, non-clitic object pronouns cannot be used as bound variables (Despić 2011, Jovović in press). Under the above suggestion that this is an effect related to SpecA/A'P, this can be captured if focalized object pronouns move to a middlefield SpecA/A'P.

structural position. This was soon followed by various contextual approaches, where whether XP is a phase depends on the syntactic context in which it occurs (on a par with *Barriers,* and in contrast to the bounding/early phase approach), see e.g. Bošković (2005), (2014), (2015), Bobaljik & Wurmbrand (2005), den Dikken (2007), Despić (2011), Gallego & Uriagereka (2007), Takahashi (2011).[37]

Further, Bošković (2016b) argues that just like the phase status of a phrase is affected by the syntactic context in which it occurs, the concept of *phasal edge*, i.e. the status of a Spec regarding the PIC, is affected by the syntactic context in which it occurs: the highest phrase in a phasal domain functions as a phase, and the highest edge in multiple-edge contexts (α in [$_{XP}$ α [$_{XP}$ β [$_{XP}$ γ) functions as the phasal edge.

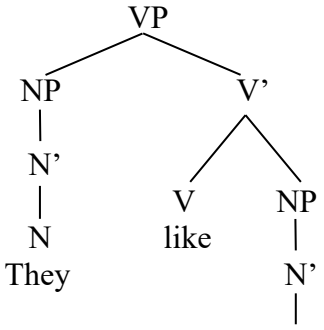
There has thus been a consistent move toward contextuality in the locality of movement. The contextual approach to the EPP gains theoretical significance within this broader picture: It shows broader relevance of contextuality, contextuality now also being relevant in defining the EPP (in fact in the same way as for phases and phasal edges—there is a domain for phases/phasal edges/EPP, with the highest phrase in the relevant domain functioning as a phase, phasal edge, locus of the EPP effect).[38]

The scope of the contextuality of syntax is even broader. Chomsky (2013) argues that labeling is also contextual. The same element behaves differently for labeling in different contexts—a phrase behaves differently in phrase-phrase and head-phrase mergers as well as in different phrase-phrase mergers, and its labeling status changes during the derivation, e.g. α in *Who do you think [$_{\alpha}$ ~~who'~~ that she fired ~~who''~~*] changes from an unlabelled object (before *who'* moves away) to a CP (after *who'* moves away).

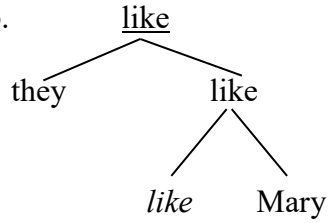
Bare phrase structure is also very contextual: whether β is a head, phrase, or an intermediate projection depends on its syntactic context—its status also changes during the derivation: what is a maximal projection after a head and a phrase merge becomes an intermediate projection with further merger.

There is a parallelism here with the locality of movement: In the bounding node/rigid phasehood approach, one can look at a node itself, without paying attention to anything around it, and determine whether it is a bounding node/phase or not. This is not possible with *Barriers*/contextual phasehood. In GB phrase structure one only needs to look at a node to determine its phrase structure status, whether it is a phrase or a head (124a). In bare phrase structure, looking at any of the *like*-s in (124b) does not help in determining whether it is a head or a phrase, its status being determined contextually (an element that does not project (<u>like</u>) is a phrase and an element that is not a projection (*like*) is a head).

(124) a.



b.



[37]One often missed point is that structural sensitivity gives contextual phasehood the necessary flexibility to capture cross-linguistic variation regarding extraction without positing parametric variation regarding what counts as a phase, which would involve parametric variation in the computational system itself and which rigid phasehood requires (see Bošković 2014).

[38]In the contextual approach to phases, the phasal domain is essentially projected by a particular head (see Bošković 2013). We may expect to find a similar situation with the EPP domain. The locus of the EPP should then be the head of the lowest phrase where the EPP can be satisfied, which means T. So how high the EPP domain can be propagated (see below for implementation) then becomes, at least in part, the issue of what counts as the extended domain of T(P) (which may be tied to the A/A' distinction). Regarding phases, there are two phasal domains in the clause, the clausal and the verbal. Interestingly, Saito (2011) argues the same holds for the EPP effect (see also fn 36 and van Urk & Richards 2015)—in addition to the clausal EPP effect there is also a verbal domain EPP effect. (In fact, with a parallelism with the phasal domain—its locus is the same projection that serves as the phasse. Saito actually argues against the parallelism, but this is because he shows that there is an EPP effect in this domain with unaccusatives and passives, which following Chomsky (2000) he assumes do not project a phasal domain; see, however, Bošković (2014, 2015) and Legate (2003) for arguments for a phasal domain in these cases.)

N
Mary

The A/A' distinction is also now (i.e. in the phase system) contextual. To illustrate, movement out of vP must stop by SpecvP. The A/A' status of a SpecvP depends on the nature of movement that stops by SpecvP: if we are dealing with A-movement (i.e. the position below and above SpecvP in the relevant chain is an A-position), the SpecvP counts as an A-position (also if SpecvP is the landing site of object shift); if we are dealing with A'-movement (as with wh-movement of the adjunct in (125) or long-distance movement of objects out of vP), the SpecvP counts as an A'-position; we need to look at the larger syntactic context to determine the status of a particular SpecvP regarding the A/A'-distinction.

(125) How$_i$ do you [$_{vP}$ t_i think [that Mary fixed the car t_i]]

Furthermore, Bošković (2015, 2016a, 2018, 2020) provides a uniform account of all island/locality-of-movement effects based on a contextual approach to phases and the labeling theory, which is also heavily contextual, where there are in fact no islands as this notion has been traditionally understood—there are no phrases that by their nature, independently of their syntactic context, disallow extraction (extraction is possible from all islands in well-defined contexts).

Additionally, Bošković (2023c) argues for the contextuality of spell-out. In particular, based on contextual phasehood and the labeling theory Bošković (2023c) argues that phase XP with YP in its Spec does not always behave in the same way with respect to spell-out: if YP is in a successive-cyclic movement position, the sister of YP is sent to spell-out, otherwise the full XP is sent to spell-out.

There has thus been a constant broader move toward contextuality/context-sensitivity of syntax which permeates many domains, including structure-building and labeling, the A/A' distinction, formulation of locality domains (traditional islandhood as well as the status of phasal projections and their edges), spell-out, and now also the EPP (the contextuality of the EPP is essentially the same as the contextuality of phases and phasal edges, being defined in the-highest-phrase-in-the-relevant-domain terms).

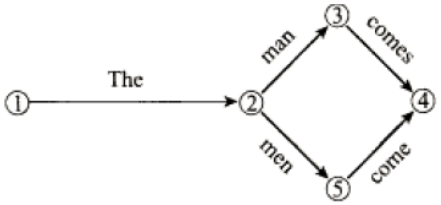
11. More on the nature of the EPP

Above, I adopted the term EPP essentially for ease of exposition, what I really meant is the EPP effect. I have not provided an actual account of the EPP effect, which is still largely mysterious. In this section I look more closely into what the current discussion can tell us about the nature of the EPP.

First, the above discussion indicates that things like the EPP and the A/A' distinction are not simple properties of the Merge operation itself, which would leave no room for contextuality. More precisely, they are not properties of the Merge operation in the sense that they can no longer be defined just through the Merge operation that creates the relevant position. The EPP used to be defined that way—it was assumed to be satisfied through the merger with T'/I' in GB structure building, and TP/IP in bare phrase structure. Similarly with the A/A' distinction: a position created by a merger with a case/θ-assigning head (or its projection) is an A-position. In that sense, the EPP and the A/A' distinction were simple properties of the Merge operation. That, however, leaves no room for the required contextuality. They can then no longer be considered to be simple properties of the Merge operation itself.

There is a larger point to be made: they can no longer be considered simple Markovian properties. In fact, while put in very different terms, the above discussion confirms a conclusion from Chomsky (1957) regarding finite-state devices (Markov processes): they are insufficient to capture language. Finite-state devices are characterized by: an initial and final state (finite in number), a specification of transition from one state to another (not necessarily distinct), and a specification of a symbol printed when a transition obtains. (126) is a simple finite state device grammar that generates *the man comes* and *the men come.*

(126) (Chomsky 1957)



The transition from state 1 to state 2 prints *the*, from 2 to 3 *man*, from 2 to 5 *men*... A word restricts the choice of the next one, so **the man come* is underivable. The system captures infinity. Inserting a loop *and comes* at state 4 would give *the man comes and comes*, *the man comes and comes and comes…*

A serious limitation of the system concerns non-adjacent relations. Once a finite-state device is in a certain state, it knows that state, where it can go from there, and what symbol to print. It does not know where it was, i.e. how it got to the current state, and how many times it was in it. It has no memory; as a result, it cannot deal with non-adjacent relations. This is clearly problematic when it comes to language, where non-adjacent dependencies that need memory are quite common. Consider e.g. (128), which derives missiles, anti-missile missiles (a device which neutralizes missiles), anti-anti-missile missile missiles…The best a finite-state device can do is (127) (anti^n missile^n), which does not equal (128).

(127)

(128) anti^n missile^{n+1}
(*n anti*'s followed by *n+1 missile*'s) (Lasnik at al 2000)

<u>*Either*</u> *x* <u>*or*</u> *Y* and *the* <u>*man*</u> *who said we left* <u>*is*</u> *calling* also illustrate non-adjacent dependencies. So, it is clear that a finite-state device cannot fully capture the nature of language. But is there anything in language that looks like a finite-state device? There actually is: compositional semantics. Consider (129).

(129)


A tenet of compositional semantics is that when computing the meaning we get by combining A and B, we do not know how we got to A or B; we only know A and B and what we get by combining them. In this respect, compositional semantics has no memory, and no look-ahead power either—it is like a finite-state device. Many PF processes, like affix hopping, require adjacency, which is in its nature Markovian.

While there are components of the grammar which are Markovian, a Markovian device is insufficient for syntax. Probably the most important things the theory of syntax needs to capture are infinity and non-adjacent/long-distance relations. A Markovian device can capture the former, but not the latter. Returning to the discussion of contextuality, contextuality is by its nature non-Markovian. The current discussion thus confirms the non-Markovian nature of syntax, considerably broadening its scope. As noted above, things like the EPP and the A/A'-distinction were treated as simple properties of the Merge operation, which essentially means they were Markovian properties. The contextuality of these properties the above discussion has revealed shows that a simple Markovian perspective on them cannot be maintained.

There is, however, one component of Markovian processes that has been endorsed in minimalism (see also Chomsky 2021). Recall that they are incapable of look-ahead. The lack of a look-ahead power is one of the tenets of minimalism. Consider the notion of *local economy* (Collins 1997). Under local economy, when evaluating the best course of action, all we know is where we are and what we can do <u>next</u>, nothing else, we cannot look-ahead to the steps after the next step, which are in fact Markovian properties.

A question then arises, do the contextual processes noted above require look-ahead? At first sight, it seems they do. But at closer scrutiny, this turns out not to be the case. Bošković (2014) in fact shows this for the contextual approach to phases discussed above. Consider in this respect the contextual approach to the EPP. Agrs merges into the structure, looking for a nominal to attract (only nominal elements undergo internal merge with it). If there is no nominal to attract, no internal Merge can take place–Agrs is done driving the derivation. The A/A' head then merges with it. This actually tells us something about the nature of the EPP requirement. If a head has an EPP property, once it enters the structure, the EPP property is satisfied by merging the projection of that head either with a phrase that can satisfy the EPP or with a head that has the EPP property (the latter captures the propagation of the EPP property, see below). There is no disjunction here; informally, both cases involve an EPP merger.[39] To implement this, I assume that phrases that can satisfy the EPP have a valued EPP feature. Heads like Agrs and A/A' have an unvalued EPP feature. Once Agrs enters the structure, if there is a nominal, like *Al* in (130), to attract, Agrs attracts it—merger with the nominal satisfies the EPP property (I follow the standard assumption that pure Agree cannot satisfy the EPP, which requires movement–this is the strength property of early minimalism). If there isn't, as in (131) (recall *who* is not a nominal), the A/A' head merges into the structure.

(130) Agrs [$_{vP}$ [$_{DP}$ Al] …]
(131) a. Agrs [$_{vP}$ [$_{QP}$ who] …]
b. A/A' [$_{AgrsP}$ Agrs [$_{vP}$ [$_{QP}$ who] …]

The A/A' head and Agrs undergo feature sharing in the sense of Frampton and Gutmann (2000), where two instances of an unvalued feature become one—when one of them gets valued they both do. The A/A' head is capable of attracting *who* (what matters here is the matching A'-feature, not nominality), *who* then merges with it, valuing its EPP property, which automatically takes care of the EPP property of Agrs.

Note that there is no look-ahead here (I have only discussed convergent derivations; as usual, there are derivations that don't converge–'bad' numeration choices lead to crashing but crucially no look-ahead is needed). Furthermore, the percolation of the EPP requirement is captured without real percolation. The above simply implements the conclusions about the EPP reached in the prior discussion. Accordingly, two different heads, Agrs and A/A', were involved, where the former (not surprisingly given its nature) can only merge with nominal elements capable of agreement (I mean traditional agreement, not Agree).

12. Conclusion

I have argued for a split IP and a contextual approach to the EPP, where the locus of the EPP effect is not a fixed, unique position, but varies depending on the actual syntactic context, the key to seeing this being the *who left* effect. In this respect, I have argued that wh-subjects are lower than wh-non-subjects but still higher than regular subjects, as illustrated in (132):

(132) a. I wonder **what Mary bought** vs I wonder **who left** vs I think **Mary left**
b. what > who > Mary

The account was extended to numerous cases, including Germanic V-2 subjects, languages with subject only relativization strategies, *only*-subjects, Bùlì wh-movement, Defaka focus movement, Belfast English and Norwegian C-marking, BP *nunca* ellipsis, HKSL rightward wh-movement, *do*-ellipsis, imperative subjects, clausal subjects, locative inversion, *there*-V constructions, Singlish non-agreeing subjects, Japanese and Chinese subjects. Regarding the EPP, I have argued for a contextual approach to the EPP where, on a par with the contextual approach to phases, there is an EPP domain, with the highest projection in the EPP domain being the locus of the EPP effect (on a par with the highest projection in a phasal domain being a phase). The hierarchy of the subject positions discussed is given in (133), with a

[39]Alexiadou and Anagnostopoulou (1998) and Rizzi and Shlonsky (2007) in fact argue that the EPP can be satisfied by head-merger (in different ways though). As should be clear from the discussion below, this is actually not the case in the current system—only Spec merger satisfies the EPP; head merger essentially propagates the EPP requirement via feature sharing.

more detailed representation of the split IP/EPP domain in (134): agreeing/nominative subjects are in SpecAgrsP, traditional locally A'-moved subjects and non-nominal subjects are in the Spec of a higher projection, and quirky subjects in SpecTP. The EPP is satisfied in the highest projection in this domain.

(133) wh-moved/non-agreeing subjects>regular subjects>quirky subjects
(134) [$_{A/A'P}$ who-subj/V2-subj/only-subj/overt imperative subj/LI/CP-subj/there-V/Singlish non-agreeing subj/Defaka focus subj/Chinese and Japanese subj [$_{AgrsP}$ Amy [$_{TP}$ quirky subj

A number of conclusions were reached concerning the nature of the EPP, left periphery, split IP, and most importantly, regarding a more general, broader theoretical move in syntax toward contextuality, which is by its nature non-Markovian, hence syntax cannot be characterized as fully Markovian by nature (though it does have some Markovian properties, like the lack of a look-ahead power).

Acknowledgments: For helpful comments, I thank anonymous reviewers, Freddy Hu, Troy Messick, Masha Polinsky, Adrian Stegovec, Ksenia Zanon, the participants of my University of Connecticut seminars and audiences at WCCFL 39 (University of Arizona), Glow in Asia XIII (The Chinese University of Hong Kong), Mayfest 2023 (University of Maryland), Eastern Generative Grammar 2023 (University of Novi Sad), University of Leiden, University of Illinois Urbana-Champaign, University of the Basque Country in Vitoria-Gasteiz, University of Göttingen, University of Cambridge, and Peking University.

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