EPP: can't live with it, can't raise without it[*]

Diego Gabriel Krivochen

diego.krivochen@ling-phil.ox.ac.uk

Abstract

Recent attempts have been made to eliminate the E(xtended) P(rojection) P(rinciple) (specifically, in its guise as a movement-triggering feature in designated syntactic heads) in favour of conditions over labelling which force phrasal movement in order to dissolve a symmetry point (mutual c-command between phrasal objects, notated {XP, YP}). In this squib we show that very simple cases of copular constructions in Spanish satisfy all requirements for labelling without the need to resort to internal merge, and thus if there is IM of a DP it must be motivated by reasons other than labelling. Once such a reason exists, the elimination of EPP becomes dubious.

1. Introduction

In this context, we need to define two theoretical notions: what the EPP is and how labelling works. We will start by defining the EPP in current generative theory.

Classically, we would define the EPP as the requirement that Spec-TP be filled (see Chomsky, 1995: 49. Chomsky, 1982: 10 defines it as a requirement that '*clauses must have subjects*', but the notion of 'subject' is clearly configurational as opposed to a primitive as in Relational Grammar or LFG). This position can be occupied either by movement or lexical insertion (e.g., of an expletive). Currently, since structure building has been reduced to unordered set formation without projection, there is *stricto sensu* no such thing as Spec-TP in any formally consequential way, and thus a redefinition is necessary. The EPP has always been strange: we start from the output configuration, and reverse-engineer a way to get to it. The motivations for such output configuration will not be reviewed here, assuming that there are independent reasons to want a DP in Spec-T (using traditional X-bar theoretic terms for expository purposes only). Needless to say, if these reasons were not valid, the whole discussion would become moot.

First, let's try to define what we will understand by 'EPP' in the context of contemporary set theoretic Minimalist work. At the core of the theory there's the operation Merge, which applied to syntactic objects X and Y in the workspace WS delivers the set containing X and Y, removing the elements X and Y from WS (Collins, 2017; Chomsky, 2020a, b, 2021; Epstein et al., 2015a, b):

Merge(X, Y) = {X, Y}

[*] Thanks are due to Elly van Gelderen and Kaitlyn Ryda for discussing, at one point or another, many of these issues with us. The usual disclaimers apply.

Regardless of whether 'remove' is a separate operation (Chomsky, 2019: 279) or delivered by a condition Minimal Yield (Chomsky, 2021: 19), the essence of structure building in contemporary Minimalism is *free* (untriggered) *unordered set formation*[1]. All syntactic conditions, therefore, must be formulated in terms of possible and impossible set-theoretic objects and mappings between these.

The formulation of Merge makes no reference to the source of the SO being operated over. Internal and External Merge differ only in terms of whether one of the SO involved in the operation is a term of the structure already built or not. The strong commitment to unlabelled, unordered sets created by means of an unrestricted operation entails not only a departure from X-bar theory, but also from certain forms of Bare Phrase Structure. Indeed, Chomsky (1994: 63) says

> *The operation Merge, then, is asymmetric, projecting one of the objects to which it applies*.

Current Merge, on the other hand, is presented as fundamentally symmetric (Set-Merge), see e.g. Chomsky (2020: 48). Pair-Merge makes a return, again to account for adjunction (see fn. 1).

Given the abandonment of traditional phrase structure in favour of unordered sets and the fact that grammatical functions play no role in the theory, attempting to define EPP as a requirement for 'specifiers' to be filled, or for clauses to have 'subjects' does not seem appropriate. Initially, then, we may want to formulate the EPP along the following lines:

> **EPP (first stab):** a syntactic object SO must (Internally/Externally) Merge with a set whose outermost member is T (i.e., a set S such that there is no S' that properly contains S and T is an element of S, and for any S" such that S" ⊆ S, T does not belong to S"[2]).

[1] Strictly speaking, even though Merge always delivers sets, they are not always unordered. Chomsky (2000: 133; 2004: 117, 118; 2020a: 49; 2021: 35) also assumes an operation Pair-Merge, which '*…adjoins α to β to form <α, β>*' (2000: 133). Despite <α, β> being set-theoretically equivalent to {α, {α, β}} (the Wiener-Kuratowski definition of ordered pairs, see Dipert, 1982 for extensive discussion), Chomsky says '[…] *it is natural to conclude that the adjoined element α leaves the category type unchanged: the target β projects.*' (Op. Cit.). It thus seems more natural to see this object as {β, {α, β}} (where β is the label) than as {α, {α, β}} (where α is the label). This ordered-set-formation operation has been invoked by Chomsky in the analysis of adjuncts, the introduction of which does not change the category of the input to adjunction (see also Dowty, 2003). Specifically, Pair-Merge has been mentioned by Chomsky in connection to experiencers in raising constructions (Chomsky, 2021: 35), adjectival modification in NPs (2020a: 49-50), 'adjuncts' more generally (2004: 117), and at CI it is supposed to deliver '*predicate composition*' (2004: 118). Pair-Merge would involve syntactic objects derived in parallel (assuming some kind of multidimensional workspace or set thereof, cf. 2020a: 49; 2021: 35), and after its application the adjoined object becomes invisible for both labelling and extraction (2020a: ix, x, 49).

[2] Cf. Epstein et al.'s (2013: 262) definition of *root*:

> *K is the root iff:*
> *for any Z, Z a term of K, every object that Z is a term of is a term of K.*

We may require, then, that T be the root of the relevant set.

A version of this formulation is perhaps that of Epstein et al. (2015: 45), where the EPP feature of T requires '…*that something be overtly merged with the projection headed by T*'. However, that will not work, since

1) {C, {T, {…}}

is not an allowed, EPP-abiding configuration under standard assumptions. We may, then, require that the SO that merges with a set whose outermost member is T be a SO endowed with phi-features. This also will not work: in addition to generating (1), it would also allow for a configuration such as (2):

2) {v, {T, {…}}

Both C and v, qua phase heads, would be endowed with phi-features, which in the theory in Chomsky (2008) are passed on to the non-phase head they take as a complement (i.e., to/with which they Merge) via Feature Inheritance. The phi-features in C and v are unvalued and possibly uninterpretable, however. This allows us to refine the definition, making explicit reference to interpretability:

> **EPP (second stab):** a syntactic object endowed with valued interpretable phi-features must Merge with a set whose outermost member is T.

This definition is consistent with Chomsky's (2020b: 164) informal characterisation of the notion SPEC(ifier): the phase heads C and v* motivate Internal Merge of a DP to the SPEC position of their non-phasal complements,

> *Using the conventional term SPEC informally, meaning sister-of XP or of the head X of XP = {X, YP}.*

Despite there being no 'sisterhood' under set-theoretic Merge, co-membership should do the trick. For so-called 'generalised EPP' effects, replace T by any head with some property *p* (e.g., be a phase head).[3] Further refinements are of course possible: we may want that the SO that is Merged with the set {T, {…}} be an SO that phi-agrees with T. In such a case, however, problems may arise with expletive *there* (which, following Chomsky, 2001, is phi-defective) and with clausal 'subjects' (since CPs do not have phi-features that T can agree with; see Picallo, 2001 for discussion).

[3] In graph theoretic frameworks, such as McKinney-Bock & Vergnaud (2014) and Krivochen (2023), we may formulate the requirement as a condition on the outdegree of T:

> *Graph-theoretic EPP: T must have outdegree 2*

The reasoning is similar: if T dominates V and V dominates its arguments, then there is a walk from T to the subject, which can be used to probe. We want there to be a direct relation between T and the subject, though, which entails that we need T to directly (not transitively) dominate the subject.

The second part of this introduction pertains to *labelling*. The labelling account of EPP effects in copulative constructions is, roughly, as follows (based on Chomsky, 2013, 2015; van Gelderen, 2022: Chapter 1; Roy, 2023). Consider first the formulation of the so-called 'Labelling Algorithm' (LA) in Chomsky (2013: 43)

> *Suppose SO = {H, XP}, H a head and XP not a head. Then LA will select H as the label, and the usual procedures of interpretation at the interfaces can proceed. The interesting case is SO = {XP,YP}, neither a head (we return to the only other possibility, {H, H}). Here minimal search is ambiguous, locating the heads X, Y of XP, YP*[4]*, respectively. There are, then, two ways in which SO can be labeled: (A) modify SO so that there is only one visible head, or (B) X and Y are identical in a relevant respect, providing the same label, which can be taken as the label of the SO.* (see also Chomsky, 1994: 68)

Chomsky follows Moro's (2000) analysis of copulas, and takes copulative constructions to be structures of the form

3) {copula, {$_{\alpha}$ XP, YP}}

Because (Chomsky says, although see Krivochen, 2023 for arguments against this position) XP-YP is ambiguous for Minimal Search, one of the phrases must move: given that copies are invisible for the LA, whatever phrase remains in the 'small-clause-like' structure will provide the label:

4) {XP, … {copula, {$_{\alpha}$ <XP>, YP}}} (minimally adapted from Chomsky, 2013: 44)

If the copy of XP (in < >) is invisible for labelling as it is '*part of a discontinuous element*' (also a set-theoretically problematic claim; see Gärtner, 2022), α will receive the label of YP. Having XP raise from {XP, YP} would be motivated by the need to generate a labelable object, and not to satisfy an EPP requirement in some higher head (e.g., T).

Of particular relevance to this squib is the case Chomsky identifies as (B): the heads X and Y of XP and YP are 'identical in a relevant respect'. Suppose that our XP and YP are an argumental DP (a shorthand for a set with outermost D) and a set with outermost T. Then,

> *T is similar to roots: T is too "weak" to serve as a label. With overt subject, the SPEC-TP construction is labeled ⟨ϕ, ϕ⟩ by the agreeing features. Therefore, English satisfies EPP.* (Chomsky, 2015: 9)

In other words: because there is phi-agreement between the outermost heads D and T of the aforementioned sets, the output of Merge is labelled ⟨ϕ, ϕ⟩. Phi-agreeing heads provide a label.

[4] We use 'XP' merely as a proxy for a set, as does Seely (2006).

In this squib we argue that the argument that EPP effects in copular sentences can subsumed under labelling be does not go through.

2. Labelling in copular constructions

2.1 Adjectival copular constructions

Consider the Spanish sentence (5):

5) Juan es trabajador
J. be.3Sg.Pres hard-working.3Sg.Masc
'John is hard-working'

Assuming that the first Merge involves two elements, and that these are singletons[5], we would have the derivation in (6):

[5] This is a somewhat controversial point. For example, Chomsky (2020a: 37) says:

> *We want to say that [X], the workspace which is a set containing X is distinct from X.*
>
> *[X] ≠ X*
>
> *We don't want to identify a singleton set with its member. If we did, the workspace itself would be accessible to MERGE. However, in the case of the elements produced by MERGE, we want to say the opposite.*
>
> *{X} = X*
>
> *We want to identify singleton sets with their members*

This may lead to contradictions. For example, {Ø} is a subset of every set, but Ø is not an element of every set. Note also that in the Minimalist literature (Chomsky, 2020a, b, 2021; Collins, 2017; Epstein et al., 2015a, b, 2022; Komachi et al., 2021) Merge applied to X and Y is notated Merge(X, Y), not Merge({X}, {Y}). The only reference we have been able to find where the element-singleton distinction is drawn is Huijbregts (2019), an abstract rather than a paper, where he says that

> *Standardly, the elements P or Q in Merge(P, Q, WS) are taken to be single syntactic objects (singletons) or terms thereof. Let's call this the "special theory of merge" (STM). We propose to generalize merge as an operation on WS that is free to select sets as opposed to SO's. The result is a "general theory of merge" (GTM), with special Merge constituting just the limiting case of general Merge where singletons rather than nonunit sets are being selected*

The use of 'standardly' is surprising. In Krivochen (2023) we discuss in detail the problems generated by set-theoretical inconsistencies in the definition of Merge-mates. Noting a problem that emerges with a strict Bare Phrase Structure implementation of Labelling, Rizzi (2015: 20) says:

> *elements drawn from the lexicon bear a [+lex] feature; syntactic objects created by merge normally do not inherit this feature, so heads are objects marked as [+lex] and phrases are not* […]. *Heads, i. i.e. elements marked [+lex], but not phrases, are taken into account by the labeling algorithm. Here, I will put aside the problem* […]

There are many reasons why such a feature-based approach to the head-phrase distinction is not only unnecessarily stipulatively, but also directly contradictory to how heads are identified under Minimal Search in Chomsky (2013, 2015, 2020a, b, 2021) and the aforementioned references.

6) a. {{Juan}, {trabajador}}
b. {es, {{Juan}, {trabajador}}

Juan and *trabajador*, crucially, must agree on person, number, and gender:

7) a. *Juan$_{\text{Masc.Sg}}$ es trabajadora$_{\text{Fem.Sg}}$ (gender mismatch)
b. *Juan$_{\text{Masc.Sg}}$ es trabajadores$_{\text{Masc.Pl}}$ (number mismatch)

If they agree, then the set {{Juan}, {trabajador}} should be labelled <phi, phi>. If it is, then there is no labelling motivation for {Juan} to move. Here, the adjective is not an adjunct (we don't have something like 'a hard-working boy', which is the kind of example considered in Chomsky, 2020: 49), so Pair-Merge should not apply. Note, however, that even if it did, we would get the ordered set <Juan, trabajador>, which poses even less of a labelling problem: the 'adjunct' adjective is, quoting Chomsky, '*off in some other dimension*' (2020a: 50), and thus invisible for labelling. Sure, the label would be provided by *Juan* as opposed to *trabajador* (the latter, the label that would have been assigned to the SO after *Juan*-raising), but is it unclear whether this would be a problem at all (certainly, it would not motivate DP raising for labelling reasons).

Suppose that we considered the phi-set of adjectives to be somehow 'defective', as in Chomsky (2001: 18), in that they would have Number, Gender, and Case (but no Person). So far as we can tell, there's no restriction to labelling (6a) <Num, Num> or <Gend, Gend>, so there should be no problem there either. But suppose that only a full set of phi features allows for <phi, phi> labelling. This would be somewhat strange, that the label of a complex object was a feature that does not really exist: 'phi' is a shorthand for a bundle of features (at least person and number, possibly also gender and definiteness, see den Dikken, 2011; Preminger, 2021). There is, strictly speaking, no 'phi-feature'. So labelling should actually be something like <{person, number}, {person, number}> (this would also be available under a percolation view of feature-based labelling, as in Zeijlstra, 2020. Important to this view is the fact that phi features in adjectives may enter the derivation unvalued, but are interpretable). In any event, do suppose that only a full set of phi-features can label, and that adjectives are phi-defective. In this case, <F, F> labelling would not be available and -assuming that lexical terminals are singletons- one of the XPs (either DP or AP) would need to raise. We will see that copulas with predicative DPs (which should not be phi-defective) present an unavoidable challenge to labelling-based DP raising.

It is important at this point to note that, wearing our Minimalist hat, a theory with only one operation over features is preferable over a theory with two. Chomsky (2000, 2001) distinguishes between Agree and Concord, with Concord involving 'Merge alone'. The distinction between Agree (which involves at least Minimal Search, plus Agree Link and Agree Copy) and Concord (which involves Merge and Copy, presumably; see e.g. Carstens, 2020: 87, ff.) is upheld in some recent

literature. Smith et al. (2020: 4) refer to Concord as '*the sharing of phi-features between a head noun and its modifiers*'. This kind of sharing should result in labelling, in a configuration like

8) $\{\{DP_{\{[val\ Pers],\ [val\ Num],\ [val\ Gend]\}}\},\ \{AP_{\{[u\ Num],\ [u\ Gend]\}}\}\}$

the values for Num and Gend would be copied onto the head of AP, as argued above. Presumably, Concord is necessarily an operation that applies to co-members of a set, where there is no set that includes only one of those co-members. Thus, *a* and *b* can undergo Concord in (9a) but not (9b), since there is a set in (9b) that contains *b* but not *a*:

9) a. $\{\{a\}, \{b\}\}$
   b. $\{\{a\}, \{c, \{b\}\}\}$

An alternative analysis, presumably more Minimalist in its eliminative spirit, would dispense with Concord altogether. Bruening (2020: 9) adopts such a view, in a sense:

> *I assume that* ***all agreement, including nominal concord, involves an agreement probe with unvalued features that searches its sister for valued features****. When it finds valued features of the type it is looking for, it copies the values.* (Our highlighting)

In this context, Concord could apply in (9a), and Agree, in (9b). That is just nominalism, though: the operation is the same. Bruening's analysis, which unifies Agree and Concord in terms of the mechanisms that underpin both, is presumably 'more minimalist' than having two distinct mechanisms to deliver feature copy in the grammar.

Suppose that we do not want to identify a singleton set with its member (see fn. 2): that we want to keep {trabajador} distinct from 'trabajador' (the former is a set, the latter is not: it's a [+lex] element in Rizzi's 2015 terms). Then, we could have:

10) Los chicos son trabajadores
    The.Masc.Pl boy.3Sg.Masc.Pl be.3Pl.Pres hard-working.3Pl.Masc
    'The boys are hard-working'
11) {son, {{los, chicos}, trabajadores}}

If the first merge involves a head and a phrase, the head should label, delivering:

12) {trabajadores, {{los chicos}, trabajadores}} (cf. Stowell, 1981 and much work in the GB tradition)

Which then merges with the copula:

13) {es, {es, {trabajadores, {{los, chicos}, trabajadores}}}}

No labelling paradox arises.

The case of copulative constructions with a terminal node as predicate also argue against the Dynamic Antisymmetry (DA) approach to subject raising: in that approach, symmetry points must be dissolved because they are not LCA-linearisable (Kayne, 1994; Moro, 2000). In a sense, DA is the other side of the labelling coin: supposing that labels are relevant at LF, and thus labelling-driven movement can be looked at as LF-driven movement, DA-driven movement is PF-driven movement. Bear in mind that, unlike the 90's version of the theory, Agree and IM are entirely dissociated: Agree takes place at a distance (and perhaps even across phasal boundaries). This means that IM is either entirely unconstrained or entirely interface-driven (in turn, by either LF or PF requirements). This is perhaps one of the reasons why eliminating the EPP either in specific constructions, specific languages, or in general is such an important aspect of Minimalist practice (and has been so since the early 2000s: see e.g. Grohmann, Drury & Castillo, 2000; Boskovic, 2002; Boeckx, 2000; Epstein & Seely, 2006 among many others): it remains the last stronghold of feature-driven movement.

Going back to our example, and supposing that lexical terminals are not sets, we start by Merging the set {los, chicos} with the non-set 'trabajadores'. Because only one of the SO involved in the operation is a set, there is no symmetry point, and thus no linearisation (or labelling) problem. The linearisation of the portion of structure just built would be

14) trabajadores los chicos
hard-working.3Pl.Masc the.Pl.Masc boy.3Pl.Masc

but the fact that it is gibberish does not mean that the object {{los, chicos}, trabajadores} is not unambiguously linearisable. As Chomsky (2020b) has emphasised, gibberish is apparently 'required' in the current system given that Merge (Internal or External) needs no trigger. Operations just 'take place', with some outputs being interpretable and others filtered out at the interfaces.

2.2 Predicative DPs

A similar argument can be made with phrasal DP predicates, but additional considerations about agreement must be made:

15) Este chico es mi amigo
This boy.3Sg.Masc be.3Sg.Pres my friend.3Sg.Masc
'This boy is my friend'

here we have clearly two complex SO:

16) {es, {{este, chico}, {mi, amigo}}} (we abstract from the internal structure of the possessive phrase 'mi amigo' since it is inconsequential to our argument)

Here too we have agreement:

17) *Este chico$_{Masc}$ es mi amiga$_{Fem}$

In connection to the previous discussion, note that even if we accepted that adjectives are phi-defective, we cannot say the same for DPs: *mi amigo* and *este chico* should enter the derivation with valued, interpretable phi-features. An additional problem appears, though: if we did take both DPs with valued interpretable features, it would be only by chance that we get agreeing DPs. Considering only Person, Number, and Gender, we have 3 possible values for Person, 2 for Number, and 2 for Gender. I won't do the math, but it should be clear that there are too many options most of which are gibberish. Problems do not stop here. Suppose that we wanted to say that predicative DPs enter the derivation with unvalued interpretable phi-features (accepting Pesetsky & Torrego's 2007 argument that interpretability and valuation are dissociated[6], also in Zeijlstra, 2020): in order to make sure that *mi amigo* enters the derivation with [_Person], [_ Number] (i.e., *unvalued* Person and Number, as opposed to [u-Person], [u-Number], which would be *uninterpretable*), we need to know *in advance*, before the derivation starts, that *mi amigo* is going to appear in a context in which it must have unvalued phi features (as a predicative DP). That kind of peering into the future should not be available in a derivational system, in particular considering Chomsky's (2021) argument about the Markovian character of derivations. Since we are going astray from our EPP discussion, we shall cut it short, but the problems noted in this paragraph remain.

Back on track now. We may want to say that <phi, phi> is only available in cases of Agree, not Concord. If Concord is concomitant to Merge, unlike Agree, then <phi, phi> should not be available in copulative constructions. That argument may win the battle, but as far as we can tell it would lose the war: the cost of keeping labelling as a way to obtain DP raising is to admit another operation, distinct from Agree (distinct enough that labelling can make a difference between their structural descriptions). That seems to us to be considerably more costly than admitting an EPP feature in what is already a feature-based system.

Alternatively, we may suppose that we want to say that <F, F> labelling (<phi, phi>, or <Q, Q>) is only available for SO that have been related via IM, not EM, for some reason. This would require the LA to have access to the derivational history of a structure. Given current assumptions

[6] Specifically, Pesetsky & Torrego (2007: 269) allow for all combinations of *interpretability* and *valuation*:

Types of features (boldface = disallowed in MI/DbP)

u*F *val	**uninterpretable, valued**	*i*F *val*	interpretable, valued
*u*F [ ]	uninterpretable, unvalued	***i*F [ ]**	**interpretable, unvalued**

For example, Tns in T is interpretable but unvalued. Verbs come from the Lexicon inflected for Tns (thus Tns is valued in V), but that feature is not interpretable in V. In these terms, Tns in T would be *interpretable* and *unvalued*, whereas Tns in V would be *uninterpretable* and *valued*. Since unvalued features probe, T probes V and copies the value of Tns. Such a system needs no Affix Hopping to deliver V morphology, but does require a richly inflected Lexicon. See also van Gelderen (2016).

about what may happen at the phase level, this is not entirely unreasonable: if a chain can be inspected to see if it respects the theta criterion or not (delivering, e.g., the raising-control distinction in Chomsky, 2021), part of that process may also involve marking the head of a chain and making that count for LA. This requires us to allow SO to remain label-less at least until Transfer. The counter-cyclicity problem does not go away, but otherwise the argument does not seem completely outlandish other than the fact that we need to stipulate that a labelling option that should be straightforward (if you have two sets with common features, label their combination as these common features) must be complicated by having access to information about how a set has been created (if you have two sets with common features, check whether one is the head of a chain. If so, label their combination as these common features. If not, abort labelling).

An alternative analysis of copular constructions is available, whereby predication is not a direct relation between lexical categories. Suppose that, as in Bowers (1993, 2001), predication is necessarily mediated by a functional category (a controversial claim, but a popular one). Can PredPs be invoked in the eliminative argument? We think not. PredP also do not help in rescuing the labelling approach to EPP effects. Let us see why. Suppose that we Merge the predicative phrase -say, a DP- with a Pred head:

18) a. Merge(mi, amigo) = {mi, amigo}
b. Merge(Pred, {mi, amigo}) = {Pred, {mi, amigo}}

Being a case of H-XP relations, (18b) can be labelled Pred(P).

In parallel (as is the case with all complex specifiers, for independently motivated reasons), we construct the other DP:

19) Merge(este, chico) = {este, chico}

And finally we Merge the output of (19) to the SO defined in (18b):

20) Merge({este, chico}, {Pred, {mi, amigo}}) = {{este, chico}, {Pred, {mi, amigo}}}

At this point, a purported labelling failure would take place, since we have two complex objects as co-members of a set. However, note that Pred or not, phi-agreement between *este chico* and *mi amigo* must necessarily hold. Given the fact that under a PredP analysis they are not Merge-mates, it is unclear how Concord would work. Suppose that the predicative DP enters the derivation with unvalued phi-features (which is in itself problematic, since even if we admit that the heads of predicative DPs enter the derivation with unvalued phi-features that get valued via Concord, it means knowing that a D or N head will appear in predicative position even before we started to build structure): unless reverse Agree is admitted, the predicative DP cannot probe the argumental DP. The argumental DP has no reason to probe, since by hypothesis it enters the derivation with valued phi-

features (which are the features that T will probe for). As a side note, no labelling-based argument against the EPP that we know of makes use of reverse Agree[7].

We may, alternatively, say that the unvalued features of the predicative DP percolate to the complex object {Pred, {DP}} and get valued via Concord…but in that case, there is nothing preventing labelling of

21) {{este, chico}, {Pred, {mi, amigo}}}

as <phi, phi>, since the values of the phi-features of *este chico* can be copied to its Merge-mate, delivering an object with shared features. It is unclear whether Pred bears unvalued phi-features, and we have found no reference that clarifies this issue.

3. Conclusions

A cautionary note. The arguments provided in this brief note (all based on trivial Spanish data using predicational and specificational copular constructions) against a reduction of EPP to labelling do not entail that there is no problem with an XP-YP unit. Only that, in these specific constructions, there is no labelling failure that could motivate raising of one of the terms in an XP-YP symmetry point. These symmetric syntactic objects are independently problematic in some forms of Minimalism. For purposes of LCA-based linearisation, XP-YP is still a symmetry point that may trigger independent Spell-Out of either object (Uriagereka, 2002, 2012). There is also a type-theoretic problem, noted e.g. in Bowers (1993: 648, ff.) and Roy (2023), in that the relation between the two DPs in a copular sentence cannot be derived compositionally. Those issues, and possible analyses, are beyond the scope of this brief squib. The point is that, given the fact that there is no labelling issue in these structures, it is not possible to use labelling as a reason to have a phrase raise. Thus, the argument that EPP effects in these structures can be reduced to labelling failures carries little -if any- force.

Many of the early-2000s arguments that attempted to eliminate the EPP as an independent property of the grammar pertained to *redundancies*: independently motivated mechanisms can do what the EPP does without additional assumptions. For example, Epstein & Seely (2006: 10) identify redundancies between the EPP and the following mechanisms:

- Case valuation
- Predication theory
- Locality
- Derivational morphology
- Null complementiser theory

[7] It is also worth noting that among the arguments put forth by Bowers (1993, 2001) in favour of the PredP analysis, morphological agreement (either via Agree or Concord) is not one of them.

The specific arguments put forth in the early 2000s do not necessarily carry over to contemporary Minimalism, given how some metrics have changed. For example, Epstein & Seely work under the (standard back then) assumption that Merge is simpler than Move (Merge-over-Move, a principle proposed in Chomsky, 2000), whereas Chomsky (2020a, b, 2021) argues that Move (Internal Merge) is preferable to Merge (External Merge) insofar as it only works with which is available in the workspace, thus restricting the search space. Similarly, part of their argument based on locality has to do with the idea of Specifier positions being 'checking positions' (and the assumption that Case must be checked in a Spec-Head relation), a notion that plays no role under current assumptions. In (2015a: 20, fn. 22), considering the relation of phi-agreement between T and DP (which should be followed by IM of DP to Spec-T), Epstein et al. say

> *What forces IM to raise the goal to the specifier of the phi-probing head—the residue of Extended Projection Principle (EPP)—is still an open question.*

They assume, with Chomsky (2015: 14; 2020b: 166), that IM (like EM) needs no motivation, featural or otherwise: anything accessible in WS can be IM'd at the root, freely, without regard for creating an interpretable object or repairing local violations. Merge applies blindly, *sponte sua, sine lege* (Ov. Met. 1, 89-90). That's one way to solve the problem, if a somewhat Alexandrian one.

Some final considerations. The 'direction' of redundancy elimination is problematic: if principles or mechanisms P and Q (say, EPP and Case, or Labelling) are redundant, in that they cover (at least partially) the same empirical ground, how do we know which one to eliminate? In the domain of our inquiry, the usual answer has been 'eliminate EPP', but that is certainly not the only logical option. For example, McFadden (2003) proposes that the redundancies between EPP and Case should be resolved by eliminating syntactic Case (making it exclusively post-syntactic, along the lines of Marantz, 2000) rather than EPP. Considering the arguments put forth in this squib against a pure labelling approach to XP raising in copular constructions, and the unclarity of the applicability of the 'redundancy' argument schema to the same cases, it seems that the reports of the EPP's death are greatly exaggerated.

References

Boeckx, Cedric (2000) EPP eliminated. Ms. University of Connecticut.

Boskovic, Zeljko (2002) A-movement and EPP. *Syntax* 5(3). 167-218.

Bowers, John (1993) The syntax of predication. *Linguistic Inquiry* 24, 591-656.

Bowers, John (2001) Predication. In Mark Baltin & Chris Collins (eds.) *The Handbook of Contemporary Syntactic Theory*. Oxford: Blackwell. 299-333.

Bruening, Benjamin (2020) The head of the nominal is N, not D: N-to-D Movement, Hybrid Agreement, and conventionalized expressions. *Glossa: a journal of general linguistics* 5(1): 15. 1-19. https://doi.org/10.5334/gjgl.1031

Carstens, Vicky (2020) Concord and labeling. In Peter W. Smith, Johannes Mursell & Katharina Hartmann (eds.), *Agree to Agree: Agreement in the Minimalist Programme*. Berlin: Language Science Press. 71-116.

Chomsky, Noam (1982) *Some concepts and consequences of the theory of Government and Binding*. Cambridge: Mass.: MIT Press.

Chomsky, Noam (1994) Bare phrase structure. In Héctor Campos & Paula Kempchinsky (eds.), *Evolution and revolution in linguistic theory*. Washington D.C.: Georgetown University Press. 51-109.

Chomsky, Noam (1995) *The Minimalist Program*. Cambridge, Mass.: MIT Press. [cited by the second edition, 2015]

Chomsky, Noam (2004) Beyond explanatory adequacy. In Adriana Belleti (ed.) *Structures and beyond*. Oxford: OUP. 104-131.

Chomsky, Noam (2013) Problems of projection. *Lingua* 130. 33-49. https://doi.org/10.1016/j.lingua.2012.12.003

Chomsky, Noam (2015) Problems of projection: extensions. In Elisa Di Domenico, Cornelia Hamann & Simona Matteini (eds.) *Structures, strategies and beyond: Studies in honour of Adriana Belletti*. John Benjamins. 1-16. https://doi.org/10.1075/la.223.01cho

Chomsky, Noam (2019) Some puzzling foundational issues: The Reading program. *Catalan Journal of Linguistics*. 263-285. https://doi.org/10.5565/rev/catjl.287

Chomsky, Noam (2020a) UCLA lectures. Ms. https://ling.auf.net/lingbuzz/005485

Chomsky, Noam (2020b) Puzzles about phases. In Ludovico Franco & Paolo Lorusso (eds.) *Linguistic Variation: Structure and Interpretation*. Berlin: de Gruyter. 163-168.

Chomsky, Noam (2021) Minimalism: Where we are now, and where we can hope to go. *Gengo Kenkyu, 160*, 1–41. https://doi.org/10.11435/gengo.160.0_1

Collins, Chris (2017) Merge(X, Y) = {X, Y}. In Leah Bauke & Andreas Blümel (eds.) *Labels and roots*. Berlin: de Gruyter. 47–68. https://doi.org/10.1515/9781501502118-003

den Dikken, Marcel (2011) Phi-feature inflection and agreement: An introduction. *Natural Language and Linguistic Theory* 29. 857-874.

Dipert, Randall (1982) Set-Theoretical Representations of Ordered Pairs and Their Adequacy for the Logic of Relations. *Canadian Journal of Philosophy*, 12(2). 353-374.

Dowty, David (2003) The Dual Analysis of Adjuncts and Complements in Categorial Grammar. In Ewald Lang, Claudia Maienborn & Cathrine Fabricius-Hansen (eds.) *Modifying Adjuncts*. Berlin: De Gruyter. 33-66.

Epstein, Samuel, Hisatsugu Kitahara & T. Daniel Seely (2013) Structure building that can't be! In Myriam Uribe-Etxebarria & Vidal Valmala (eds.) *Ways of structure building*. Oxford: OUP. 253–270.

Epstein, Samuel, Hisatsugu Kitahara & T. Daniel Seely (2015a) Derivation(s). In Samuel Epstein, Hisatsugu Kitahara & T. Daniel Seely (eds.), *Explorations in maximizing syntactic minimization*. London: Routledge. 1-23.

Epstein, Samuel, Hisatsugu Kitahara & T. Daniel Seely (2015b) Labeling by Minimal Search: Implications for successive-cyclic A-movement and the conception of the postulate "phase". In Samuel Epstein, Hisatsugu Kitahara & T. Daniel Seely (eds.), *Explorations in maximizing syntactic minimization*. London: Routledge. 201–221.

Epstein, Samuel, Hisatsugu Kitahara, Miki Obata, & T. Daniel Seely (2015) Economy of derivation and representation. In Samuel Epstein, Hisatsugu Kitahara & T. Daniel Seely (eds.), *Explorations in maximizing syntactic minimization*. London: Routledge.

Epstein, Samuel & T. Daniel Seely (2006) *Derivations in minimalism*. Cambridge: CUP.

Gärtner, Hans-Martin (2022) Copies from "standard set theory"? A note on the foundations of Minimalist syntax in reaction to Chomsky, Gallego and Ott (2019). *Journal of Logic Language and Information* 31. 129–135. https://doi.org/10.1007/s10849-021-09342-x

van Gelderen, Elly (2016) Features and affix-hop. *Acta Linguistica Hungarica* 63 (2016)1. 1-22.

van Gelderen, Elly (2022) *Third factors in language variation and change*. Cambridge: CUP.

Grohmann, Kleanthes, John Drury & Juan Carlos Castillo (2000) No more EPP. In Roger Billerey & Brooke Danielle Lillehaugen (eds.) *WCCFL 19 Proceedings*. Somerville, MA: Cascadilla Press. 153-166.

Huijbregts, Riny (2019) Special and General Theory of Merge. https://syntaxif.wp.hum.uu.nl/wp-content/uploads/sites/218/2019/01/Huijbregts_SyntaxInterfaceLectures_2019.pdf

Kayne, Richard (1994) *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.

Komachi, Masayuki, Hisatsugu Hitakara, Asako Uchibori & Kensuke Takita (2019) Generative procedure revisited. *Reports of the Keio Institute of Cultural and Linguistic Studies* 50. 269-283.

https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/download.php/AN00069467-00000050-0269.pdf?file_id=142996

Krivochen, Diego Gabriel (2023) The search for Minimal Search: a graph-theoretic view. *Biolinguistics* 17, Article e9793. https://doi.org/10.5964/bioling.9793

Marantz, Alec (2000) Case and Licensing. *Proceedings of the Eastern States Conference on Linguistics.* Columbus: Ohio State University. Available online at http://web.mit.edu/alya/Public/print/Marantz_Case___Licensing.pdf

McFadden, Thomas (2002) Adventures in resolving redundancy: Case vs. the EPP. *University of Pennsylvania Working Papers in Linguistics* 9(1), Article 11. Available at: https://repository.upenn.edu/pwpl/vol9/iss1/11

McKinney-Bock, Katherine & Jean-Roger Vergnaud (2014) Grafts and beyond: Graph-theoretic syntax. In Katherine McKinney-Bock & Maria Luisa Zubizarreta (eds.), *Primitive elements of grammatical theory*. London: Routledge. 207-236.

Moro, Andrea (2000) *Dynamic Antisymmetry*. Cambridge, Mass.: MIT Press.

Pesetsky, David & Esther Torrego (2007) The syntax of valuation and the interpretability of features. In Simin Karimi, Vida Samiian & Wendy K. Wilkins (eds.) *Phrasal and clausal architecture. Syntactic derivation and interpretation*. Amsterdam: John Benjamins. 262-294.

Picallo, M. Carme (2001) Nominalized clauses, clausal arguments and agreement. *Catalan Working Papers in Linguistics* 9. 69-84.

Preminger, Omer (2021) Phi-feature agreement in syntax. Ms. https://omer.lingsite.org/files/Preminger-Phi-feature-agreement-in-syntax-vignette.pdf

Roy, Isabelle (2023) Predication, specification, equation. Talk delivered at General Linguistics Seminar, University of Oxford. January 16th, 2023.

Seely, T. Daniel (2006) Merge, derivational c-command, and subcategorization in a label-free syntax. In Cedric Boeckx (ed.) *Minimalist Essays*. Amsterdam: John Benjamins. 182-217.

Smith, Peter, Johannes Mursell & Katharina Hartmann (2020) Some remarks on agreement within the Minimalist Programme. In Peter W. Smith, Johannes Mursell & Katharina Hartmann (eds.), *Agree to Agree: Agreement in the Minimalist Programme*. Berlin: Language Science Press. 1-29.

Stowell, Tim (1981) *Origins of phrase structure*. PhD dissertation, MIT.

Zeijlstra, Hedde (2020) Labeling, selection, and feature checking. In Peter W. Smith, Johannes Mursell & Katharina Hartmann (eds.), *Agree to Agree: Agreement in the Minimalist Programme*. Berlin: Language Science Press. 31-70.