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ARTICLE

EPP: can't live with it, can't raise without it

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Abstract

The E(xtended) P(rojection) P(rinciple) (specifically, in its guise as a movement-triggering feature in designated syntactic heads), has been a thorn in the Minimalist side since the mid-1990s. Recently, in the context of attempts to reduce syntactic mechanisms to their minimal expression, the generative operation Merge has been defined as unordered set formation ("Simplest Merge"), and the EPP has been pronounced dead in favour of conditions over labelling which force phrasal movement in order to dissolve 'symmetry points'. This article compares several theoretical analyses and shows that very simple cases of {XP, YP} copular constructions in Spanish satisfy all requirements for labelling without the need to resort to Internal Merge (IM). Therefore, 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 on labelling grounds becomes dubious.

Keywords: EPP; labelling; Merge; copular constructions; small clauses

Résumé

Le principe de EPP (plus précisément, sous sa forme d'élément déclencheur de mouvement dans les têtes syntaxiques désignées) est une épine dans le pied des minimalistes depuis le milieu des années 1990. Récemment, dans le contexte des tentatives de réduction des mécanismes syntaxiques à leur expression minimale, l'opération générative *Merge* a été définie comme la formation d'ensembles non ordonnés (« Simplest Merge »), et l'EPP a été déclarée morte en faveur de conditions sur l'étiquetage qui forcent le mouvement phrastique afin de dissoudre les « points de symétrie ». Cet article compare plusieurs analyses théoriques et montre que des cas très simples de constructions copulaires {XP, YP} en espagnol satisfont à toutes les exigences en matière d'étiquetage sans qu'il soit nécessaire de recourir à la *Merge interne* (MI). Par conséquent, s'il y a fusion interne d'un DP, elle

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doit être motivée par des raisons autres que l'étiquetage. Une fois qu'une telle raison existe, l'élimination de l'EPP pour des raisons d'étiquetage devient douteuse.

Mots-clés: EPP; étiquetage; Merge; constructions copulaires; petites clauses

1. Introduction

This article addresses an argument, made by Chomsky (2013) and widely echoed, that DP raising to Spec-T, which in earlier versions of Minimalism was motivated by a property of T called "EPP", could be forced by independently motivated labelling considerations: a DP raises not because it is attracted by a property of T (in what Moro and Roberts 2023 call a *pull chain*) but because an unlabellable symmetry point must be dissolved (a *push chain* in Moro and Roberts's terms).[1] I will evaluate this argument in detail, and argue that Spanish copular constructions pose a challenge to the reduction of the classical EPP effects to labelling. In this context, we need to define two theoretical notions: what the EPP is and how labelling works. We start by defining the EPP in current generative theory.

Classically, the EPP would be defined as the requirement that Spec-IP/TP be filled, implemented, for example by means of a D feature in T (Chomsky 2015a). Chomsky (1982: 10) defines EPP as a requirement that "clauses must have subjects", but the notion of "subject" in transformational grammar, to the extent to which it has any role in the theory, is clearly configurational (it has been since *Aspects*), as opposed to a primitive as in Relational Grammar or Lexical Functional Grammar (see also Chomsky 1981). The Spec-TP position can be occupied either by movement (i.e., Internal Merge, IM) or by lexical insertion (e.g., External Merge, EM of an expletive).

In contemporary Minimalist theory, since structure building has been reduced to unordered set formation without projection, there is stricto sensu no such thing as Spec-TP (or, more generally, no X-bar theoretic specifiers, heads, or complements) in any formally meaningful way, and thus a redefinition is necessary. The EPP has always been strange: we start from a desired output configuration, and reverse engineer a way to get to it. The motivations for such output configuration will not be reviewed here; I will assume for the sake of the argument that there are independent reasons to want a DP in Spec-T (using traditional X-bar theoretic terms for expository purposes only), including, for example, constituent order (see section 3). Needless to say, if these reasons were not valid, the whole discussion would become moot.

At the core of current Minimalist theory is the operation *Merge*, which, applied to syntactic objects X and Y in a workspace WS, delivers the set containing X and Y, removing the elements X and Y from WS and leaving only the set {X, Y} accessible for further operations (Collins 2017; Chomsky 2020a, 2020b, 2021; Epstein et al. 2015a, 2015b, 2022; Chomsky et al. 2023):

[1] DP = Determiner Phrase; EM = External Merge; EPP = Extended Projection Principle; Fem = Feminine gender; Ger = Gerund; IM = Internal Merge; IMPF = Imperfective aspect; Inf = Infinitive; IP = Inflection Phrase; Masc = Masculine gender; PAST = Past tense; PL = Plural Number; PRES = Present tense; SG = Singular number; SO = Syntactic object; TP = Tense Phrase; VP = Verb Phrase; WS = Workspace.

Merge(X, Y) = {X, Y} ("Simplest Merge" henceforth)

Regardless of whether "removal" of X and Y is a separate operation (Chomsky 2019) or whether its effects are delivered by a condition Minimal Yield (Chomsky 2021), the essence of structure building in contemporary Minimalism is *free* (untriggered, unmotivated) *unordered set formation*. All syntactic conditions, therefore, must be formulated exclusively in terms of possible and impossible set-theoretic objects and mappings between these.

The article is structured as follows: Section 1.1 defines the properties of Simplest Merge and of the objects it generates. Sections 1.2 and 1.3 are devoted to a discussion of EPP and labelling, respectively, assuming Simplest Merge. Section 2 presents the empirical data used to ground the theoretical discussion: Spanish copular constructions, with adjectival and nominal predicates. I conclude that the data analyzed here argues against a reduction of classical EPP effects to labelling, contra Chomsky (2013 et seq.) and much related work.

1.1 Structure building: on "Simplest Merge"

Following recent Minimalist literature, this article defines Simplest Merge as an operation of set formation. Two additional considerations become relevant at this point. First, strictly speaking, even though Merge always delivers sets, these are not always unordered. Chomsky (2000, 2004, 2020a, 2021), Langendoen (2003), Epstein et al. (2022), and others assume in addition to Simplest Merge (also known as Set Merge) an operation, Pair-Merge, which "adjoins α to β to form <α, β>" (Chomsky 2000: 133). Despite <α, β>, as an ordered pair, being set-theoretically equivalent to {{α}, {α, β}} (Krivine 1971: 3), Chomsky (2000: 133) says "[…] it is natural to conclude that the adjoined element α leaves the category type unchanged: the target β projects."[2] It 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), an observation also made by Langendoen (2003). 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).[3] 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), and "adjuncts" more generally (2004: 117), as well as maintaining that 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. Chomsky 2020a, 2021), and after its application the adjoined object becomes invisible for both labelling and sub-extraction (Chomsky 2020a).

[2]This equivalence is given by the Wiener-Kuratowski definition of ordered pairs; see Dipert (1982) for extensive discussion. Gärtner (2002: 74) presents {α, {α, β}} as a "variant [of the definition of ordered pairs] of potential interest to minimalist syntax".

[3]The basic idea is that if we have a VP and adjoin any phrase, the output will also be a VP. Pair-Merge delivers the set-theoretic analogue of the phrase-structural configuration known as Chomsky-adjunction: if we *Chomsky-adjoin* A to B, we first create a copy of B that immediately dominates B, and make A a daughter of the higher copy (or 'segment') of B. B then becomes a 'multi-segment' category.

The second point pertains to the properties of the syntactic objects being Merged: while Chomsky and others emphasize that Merge is essentially Form Set (Collins 2017, Epstein et al. 2022, Chomsky et al. 2023; also Svenonius 2021, with some reservations), the specific axiomatization of set theory that underpins Merge is not always clear (see also Gärtner 2022). In their discussion of chain formation, Chomsky et al. (2019: 246) state that a separate operation COPY is unnecessary given IM on "standard set-theoretic assumptions", and Svenonius (2021: 143) cites Russell and Whitehead's *Principia Mathematica* as a source of the idea that "sets are mathematically fundamental". However, even accepting Svenonius's appeal to the "fundamental" character of sets as an argument in favour of sets being an appropriate formalization for the theory of syntax, which specific version of axiomatic set theory is assumed does make a difference. For a theory of natural language syntax, I contend, the set-theoretic underpinnings of structure building must allow for *urelements*: objects which are not sets but which may be members of a set (see e.g. Barwise 1975). Importantly, perhaps the most widely used version of axiomatic set theory, Zermelo-Fraenkel set theory, has sets as primitives, with no urelements (Krivine 1971). Syntactic urelements can be features, morphemes and roots, or lexical items (depending on the level of granularity adopted: lexicalist theories and strongly decompositional theories differ greatly in this point; cf., e.g., Williams 2011 and Borer 2005 respectively), but syntactic theory needs some irreducible non-set object to work with. This is a somewhat controversial point that deserves some commentary, as it will become relevant. For example, Chomsky (2020a: 37) says:

> *We want to say that [X], the workspace which is a set containing X is distinct from X.*
>
> $[X] \neq X$
>
> *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.*
>
> $\{X\} = X$[4]
>
> *We want to identify singleton sets with their members.*

This may lead to contradictions, depending on the set-theoretic framework adopted (see Krivochen 2023 for further discussion). For example, in Zermelo-Fraenkel set theory (ZF henceforth) {Ø} is a subset of every set (Kuratowski and Mostowski 1968: 9), but Ø is not an element of every set (importantly, $\emptyset \neq \{\emptyset\}$: informally, the empty set contains "nothing", but is not itself nothing). Note, also, that in the Minimalist literature Merge applied to X and Y is notated Merge(X, Y), not Merge({X}, {Y}) (Chomsky 2020a, 2020b, 2021; Collins 2017; Epstein et al. 2015a, 2015b, 2022; Komachi et al. 2019). Huijbregts (2019: 1) addresses the element-singleton distinction in the following terms:

[4] Cf. Barwise's (1975: 11) Definition 2.5.

> *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 SOs. 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 somewhat surprising, given the lack of precision with respect to which version of axiomatic set theory is being assumed. In well-founded set theory (i.e., axiomatizations that include the *axiom of regularity*: every non-empty set contains an element that is disjoint from it), sets that satisfy the equation $x = \{x\}$ (so-called "Quine atoms") are excluded, since if $x = \{x\}$ there is no element in $\{x\}$ that is disjoint from it. Standardly, ZF includes the axiom of regularity (e.g., Krivine 1971, Kunen 2013). Chomsky et al. (2023: 56) do seem to assume lexical items as urelements:

> *Consider now the simplest Merge representation adopted by PoP for the VP, namely {V, NP}. The information that it's a phrase is already (and inherently) encoded by the set brackets {…}.*[5] *It's a "phrase" because it's a set (i.e., it's not a lexical item).*

This passage entails that lexical items are not sets; thus, they are urelements (and set brackets are perhaps part of the grammar's alphabet). If so, then the axiomatization of set theory assumed in that work cannot be standard ZF, but some variant of it (possibly along Barwise's lines, a version of Kripke-Platek theory with urelements). In the discussion that follows, I will consider both options in the previously quoted passage from Chomsky (2020a) as alternatives: lexical items as urelements ($x \neq \{x\}$) and as Quine atoms ($x = \{x\}$).

On a related note, observing a problem that emerges with a strict Bare Phrase Structure implementation of Labelling (where labels are set members created as by-products of Merge, cf. Chomsky 1994, Epstein 2000, Kobele 2023), 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.e. elements marked [+lex], but not phrases, are taken into account by the labelling algorithm. Here, I will put aside the problem* […]

This feature-based approach to the head-phrase distinction seems to us not only unnecessarily stipulative, but also directly contradictory to how heads are identified under Minimal Search in Chomsky (2013, 2015b, 2020a, 2020b, 2021) and the aforementioned references. We will thus not consider this option in our discussion.

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 both SOs involved in

[5]Strictly speaking, the only non-logical symbol in ZF is the two-place predicate $\in$. The curly braces are sometimes referred to as a "term-forming operator", but all axioms of ZF can be stated without them (using quantifiers, connectives, and variables of first-order logic; see e.g. Kunen 2013: 16–17). In ZF, anything in {…} is a set in ZF not because of the brackets themselves, but because in ZF everything is a set.

the operation are terms of the structure already built or not. Aside from the first step in a derivation (so-called First Merge), in which both SOs are taken from the Lexicon, with EM we introduce a new element to the already existing structure. With IM, on the other hand, we copy and reintroduce a term that belongs to the structure already in the workspace. The strong commitment to unlabelled, unordered sets created by means of an unrestricted operation entails a departure not only from X-bar theory, but also from certain forms of Bare Phrase Structure (e.g., Castillo and Uriagereka 2002; also to an extent Collins and Kayne 2023). Indeed, Chomsky (1994: 63) says

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

Current Simplest Merge, in contrast, is presented as fundamentally symmetric (as "Form Set") and independent from the satisfaction of selectional properties, orthogonal to the representation of predicate-argument relations, which are fundamentally asymmetric (see e.g. Chomsky 2020a). Pair-Merge makes a return, again to account for what traditionally would have been analyzed using Chomsky-adjunction: non-selected modifiers and adjuncts.

1.2 Defining the EPP under Simplest Merge

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 the EPP as a requirement that "specifier" positions be filled or that clauses have "subjects" does not seem appropriate. Consider the core EPP case: Spec-T must be filled. Initially, then, we may want to formulate the EPP under Simplest Merge 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" $\subseteq$ S, T does not belong to S").[6]

A version of this formulation is perhaps that of Epstein, Kitahara, Obata and Seely (2015: 45), where the EPP feature of T requires "[…] that something be overtly merged with the projection headed by T".[7] Under standard assumptions, however, this "something" must be somehow restricted: for example,

[6] Cf. Epstein et al.'s (2013: 262) definition of *root*:
K is the root if:
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.

[7] If the requirement is that something *overt* be merged with the projection headed by T, null expletives cannot be claimed to exist on the grounds of EPP satisfaction. Rouveret (2018: 352) observes that, as expletives receive no interpretation at LF, depriving them of PF features would void them of any grammatical status, having no effect on either interface. If null expletives cannot exist in Minimalism for independent reasons, we must allow for Spec-less TPs rather than force Spec-T to be occupied by a null expletive. See, however, Postal (2004).

(1) {C, {T, {…}}

is not a classical EPP-abiding configuration under standard assumptions: we cannot just Merge an overt complementizer, or an adjective, or a preposition, or an adverb. In order to capture the classical EPP configuration, where a DP raises from its VP-internal position to Merge with a segment of T, we may require that the SO that merges with a set whose outermost member is T be a SO endowed with phi-features:

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

Although an advancement over the first formulation, this will not work either: in addition to generating (1), it would also allow for a configuration such as (2):

(2) {*v*, {T, {…}}

This is not the kind of output we want. Both C and *v*, qua phase heads, would be endowed with phi-features, which 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. A reviewer observes that "the irreflexivity of set membership" can be used to filter out (1) and (2), forcing the element that merges with T to be "phrasal". The accuracy of this observation is unclear, particularly given that whether terminals are Quine atoms or not is a point where Chomsky and others have been inconsistent: in non-well-founded set theory, set membership could be defined as reflexive. But even if we accepted this argument, (2) could be replaced by something like (3), where the equivalent to a traditional VP has raised (especially under free, unconstrained Simplest Merge):

(3) {{*v*, {V, N}}, {T, …}}

This, again, is not an output we would want, certainly not for purposes of classical EPP satisfaction, our focus in this article. The same argument, so far as we can see, applies to the comment from another reviewer, based on Chomsky (2015b: 9):

> *In languages where T is weak* [i.e., non-null-subject languages]*, and therefore cannot label the projection resulting from Merge with its complement (whatever that is), T must acquire a specifier in order to bring about labeling.*

In (3), T merges with a "specifier", and thus should be labellable (assuming some notion of T "strength"). However, it is not a legitimate syntactic object in English. A proponent of free, unconstrained Merge would not worry about this, but given the explosion of unusable derivations – which are undesirable from a computational viewpoint but also a problem from the perspective of "psycholinguistic responsibility" (Pollard 1997: 11) – and the fact that interpretable objects would be arrived at by pure luck, I prefer a

more classical constructivist system (in the sense of Lasnik and Uriagereka 2005), as work in Minimalist Grammars does.

Going back to (2), the phi-features in C and *v* are unvalued and possibly uninterpretable: we can take this to be the source of the problems with (1) and (2). Consider now a particularly relevant case for us: adjectival predicative copular constructions, whose derivation involves – as we will see in detail – a {DP, AP} "small clause". In these cases, only DP can raise, not AP (Moro and Roberts 2023: 4, fn. 2 and references therein). This allows us to refine the definition, making explicit reference to *interpretability*: phi-features are interpretable in DPs, but not in phase heads. Additionally, they enter the derivation valued in the nominal head within DPs, but not on APs (such that an adjective agrees with the nominal it modifies, not the other way around). The revised formulation of the "classical" EPP that results from these considerations is:

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

This definition captures the workings of the EPP in Chomsky (2000, 2001) and much related work: T's uninterpretable features probe downwards and find a DP in the *v*P/VP domain, the unvalued phi-features of T get valued under Agree, as a by-product the Case feature of DP is valued Nominative, and Internal Merge of DP satisfies the EPP feature in T.[8] This final revision is also consistent with Chomsky's (2020b: 164) informal characterization of the notion Spec(ifier): the phase heads C and *v* (the *loci* of uninterpretable features) motivate Internal Merge of a DP to the Spec position of their non-phasal complements (T for C, delivering classic EPP effects, and V for *v*, for raising to object),

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

Despite there being no relation of "sisterhood" under set-theoretic Merge, co-membership should do the trick, as in Chomsky et al. (2023: 38):

> *"Spec-of-R" would be the co-set-member of {R, IA}* [R = Root, IA = Internal Argument]

That is, Spec-R would be the syntactic object SO in the configuration {SO, {R, IA}}. This is not entirely unproblematic: assuming unordered sets and symmetric structure building, it is not entirely clear what makes Spec-of an asymmetric relation. Given {{X, YP}, {Z, WP}}, is {X, YP} Spec-of-Z or is {Z, WP} is Spec-of-X? If {X, YP} and {Z, WP} (YP and WP are used only as proxies for sets, as in Seely 2006 and Chomsky 2015b) are built in parallel in a strictly Markovian projection-less system (where there is no record of the derivation, and thus we cannot tell in which order terms have been Merged), there is no way to decide. Indeed, labelling via shared features dissolves the notion of

[8]This formulation also covers conditions such as that assumed in den Dikken (2023), which he attributes to Landau (2007): PPs cannot satisfy the EPP. In the present context, this is because Ps do not enter the derivation with valued interpretable phi features (see also Postal 2004 for numerous arguments that what appears to be a PP 'subject' in locative inversion is actually a topicalized phrase).

"specifier", as does the requirement that either SO in a point of symmetry moves (what Moro and Roberts 2023 call a push-chain), since Spec-of is a representational notion, not a derivational one (Stroik and Putnam 2011).

For so-called "generalised EPP" effects, we can, in principle, just replace T in our definition above by any head with some property *p* (e.g., be a phase head, cf. Chomsky 2000), and the valuation-interpretability condition with some other property in the relevant phrasal SO: this could give us successive cyclic DP movement through phase edges. Further refinements are of course possible: we may want the SO that is Merged with the set {T, {…}} to be an SO that phi-agrees with T, not just a SO with interpretable phi-features (see Chomsky 2020b and Rouveret 2024 for discussion). Under these assumptions, however, problems arise in a number of cases. Of these, consider for instance expletive *there*: following Chomsky (2001: 7), expletive *there* is phi-defective, having only a lexically valued [3 person] feature but no [Number]. If we require phi-completeness as a prerequisite for labelling via Agree (see Saito 2016 for a related view), there is a difficulty: it would be impossible to label {there, {T, …}}, as *there* is not phi-complete. If this requirement is relaxed, presumably <Person, Person> could do the trick (at the cost of setting *there*-clauses apart from <phi, phi> clauses, labelling-wise, with unclear effects at the CI interface).

Clausal "subjects" are equally problematic, as it has been proposed that CPs do not have phi-features that T can agree with (see e.g. Picallo 2001 for discussion). However, Davies and Dubinsky (2001), among others, propose that clausal subjects are CPs embedded within null DPs, where the null D bears (valued, interpretable) phi-features. In this case, the remarks about DPs above can be directly applied to clausal subjects. Extensions to the criterial system are also possible for <Q, Q>, <Top, Top>, and <Foc, Foc> labelling, although I will not address them in this article (other than some remarks on <Foc, Foc> in section 2.2). Alternatively, under *free Merge*, we may drop all requirements other than "something must Merge" with a set with outermost member T and let the interfaces do the work.[9] In that case, however, the relevant output condition(s) that is/are violated in cases such as (1) and (2) must be made explicit.

1.3 Labelling under Simplest Merge

In the Introduction, I mentioned that much recent literature has attempted to eliminate the EPP, expressing EPP effects in terms of solutions to labelling failures: something moves to position P not because of an EPP feature attracting it to P, but due to the need to break an unlabellable configuration somewhere else in the structure. In this article, I will deal with labelling problems in Spanish copular constructions as an empirical point to anchor the theoretical discussion. The labelling account of EPP effects in copular constructions is, roughly, as follows (based on Chomsky 2013, 2015;

[9]This is not a route I consider particularly useful for linguistic analysis. In the words of Partee (1979: 52) (when discussing the relations between the analysis of natural languages and of artificial languages created by mathematicians or logicians), "while a linguist would of course welcome formal elegance if it is attainable within the limits set by empirical constraints, the linguist is obligated to put higher priority on the facts of natural languages".

van Gelderen 2022; 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, 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.*

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

(4) {copula, {$_{\alpha}$ XP, YP}}

Because XP-YP is ambiguous for Minimal Search (but see Krivochen 2023 for arguments against this position), one of the phrases must move. Given that copies are invisible for the LA, whichever phrase remains in the "small-clause-like" structure will provide the label:

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

If the copy of XP (indicated by < >) is invisible for labelling, as it is "part of a discontinuous element" (Chomsky 2013: 44) (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 labellable object, and not to satisfy an EPP requirement in some higher head (e.g., T). Essentially the same argument is put forth in Moro and Roberts (2023), with more emphasis on the theory of Dynamic Antisymmetry (DA) and thus on the dissolution of structures that are neither linearisable by Kayne's (1994) *Linear Correspondence Axiom* (LCA) nor unlabellable as per Chomsky's LA. As Moro and Roberts (2023: 5) observe,

> *for any given POS* [Point Of Symmetry] *resulting by merging two maximal projections, movement of either XP simultaneously solves both the LCA and the LA related problems*

For the purpose of this article, I will focus on the LA argument against EPP, leaving matters of linearisation aside and noting that my arguments against the claim that EPP can be eliminated in favour of LA-based push-chain mechanisms do not automatically extend to the DA analysis.

Of particular relevance to this article is the labelling case Chomsky (2013) 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, respectively. Then,

> *T is similar to roots: T* [in English] *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 2015b: 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.

In this article, I call into question the argument that EPP effects in copular sentences can be captured by labelling only (and that EPP can thus be eliminated as redundant). A cautionary remark is at this point necessary: this work is not in and of itself a defence of an EPP feature, nor an account of EPP effects more generally (which – as a reviewer observes – include, for instance, V2 and "residual" V2 phenomena; see e.g. Roberts 2004) and how they may or may not be subsumed to other mechanisms (e.g., V raising; see Alexiadou and Anagnostopoulou 1998 as well as Rouveret 2018 and references cited there for discussion).[10] It provides an argument against the elimination of EPP in terms of labelling focused on a specific case: Spanish copular constructions. I will evaluate different configurations and consider alternative analyses, and argue that in all cases the "DP raising due to labelling failure" approach makes the wrong predictions. I conclude that, assuming the machinery in sections 1.1 to 1.3, a full reduction of EPP effects to labelling is insufficient. A coexistence of both mechanisms, subject to careful examination of the exact division of labour between them, seems to be a possible and perhaps promising research avenue.

2. Labelling in copular constructions

In this section I analyze two kinds of structure applying the framework outlined in section 1: copular sentences with adjectival predicates and copular sentences with predicative DPs.

2.1 Adjectival copular constructions

Consider the Spanish sentence in (6):

(6)	Juan/él	es	alto
	J./he	be.3SG.PRES	tall.3SG.MASC
	'Juan/he is tall'		

Let us consider some possible alternative derivations for (6) following current Minimalist technology, to test what the LA can do. Assuming to begin with that First Merge involves two syntactic objects, and that these are singletons (i.e., that lexical elements are Quine atoms), we would have the derivation in (7):

[10]It is relevant to point out that since Simplest Merge cannot deliver head movement, as highlighted by Chomsky and others, EPP satisfaction by V raising would necessarily be post-syntactic, but EPP satisfaction via DP raising could remain in the syntax. I take this to be an undesirable scenario but will say nothing more about it.

(7) a. {{Juan}, {alto}}
b. {es, {{Juan}, {alto}}

Juan (or the pronoun *él*, as for our purposes they are completely interchangeable) and *alto*, crucially, must agree on person, number, and gender:

(8) a. *Juan$_{\text{MASC.SG}}$/él$_{\text{MASC.SG}}$ es alta$_{\text{FEM.SG}}$ (gender mismatch)
b. *Juan$_{\text{MASC.SG}}$/él$_{\text{MASC.SG}}$ es altos$_{\text{MASC.PL}}$ (number mismatch)

If they agree, then the set {{Juan}, {alto}} should be labelled <phi, phi>. If it is, then there is no labelling motivation for {Juan} to move (note that the same argument holds for cases where the predicative phrase is uncontroversially a set, as in *Juan está orgulloso de su hermana* 'Juan is proud$_{\text{MASC.SG}}$ of his sister'; the *ser-estar* alternation is orthogonal to our present point). Here, the adjective is not an adjunct; in other words, it is not "a tall boy", the kind of example considered in Chomsky (2020a: 49), so Pair-Merge should not apply. Note, however, that even if it did, we would get the ordered set <Juan, alto> (or <Juan, {orgulloso de su hermana}>, abridging the structure of the adjunct), which poses even less of a labelling problem: the adjectival 'adjunct' would be, to quote Chomsky, "off in some other dimension" (2020a: 50), and thus invisible for labelling. To be sure, the label would be provided by *Juan* as opposed to *alto* (the latter, the label that would have been assigned to the SO after *Juan*-raising), but it is unclear whether this would be a problem at all (certainly, it would not motivate DP raising for labelling reasons), given the turn against constructivist systems in current Minimalist theorizing.

Let us consider an alternative analysis to see if we can still save the labelling motivation for XP raising. 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 is no restriction to labelling (7a) <Num, Num> or <Gend, Gend>, so there should be no problem there either (perhaps a similar view could be extended to other cases of defectivity, such as expletive *there*). But suppose, as noted above, that a condition was proposed that only a full set of phi features allows for <phi, phi> labelling. Phi-completeness requirements have a pedigree: Chomsky (2001: 6), for instance, establishes that "α must have a complete set of ϕ-features (it must be ϕ-complete) to delete uninterpretable features of the paired matching element β", in the context of a discussion of Case/Agreement systems. Only agreement with non-defective T (i.e., T selected by C) can value Nominative case in a DP goal. For labelling purposes, however, imposing such a completeness requirement would be somewhat strange, in that the label of a complex object would be a feature that does not really exist as such: "phi" is a shorthand for a bundle of features, at the least [person: val] and [number: val], possibly also [gender: val] and [definiteness: val] (see den Dikken 2011, Preminger 2021). There is, strictly speaking, no 'phi-feature'. Thus, the label for agreeing {DP, TP} or {DP, AP} 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, see fn. 15). In any event, suppose that only a full set of phi-features can label, and that adjectives are phi-defective. In this case, <F, F> labelling (F a feature, i.e., an attribute: value pair) would not be available and, assuming that lexical terminals are singletons, one of the XPs (either DP or AP) would need to raise, with DP raising being the only convergent option (cf. **Alto es Juan*, with neutral intonation). The labelling approach could have a consistent story in this specific scenario. We will see, however, that copulas with predicative DPs (which should not be phi-defective) present an unavoidable challenge to labelling-based DP raising.[11]

Let us consider briefly how the phi-features of a predicative adjective are valued, such that the adjective agrees morphologically with the nominal it modifies. It is important at this point to note that, following Minimalist practice, a theory with only one operation over features that links valued and unvalued attributes is preferable over a theory with two. In this context, Chomsky (2000, 2001) distinguishes between Agree and Concord, with Concord "involving Merge alone" (Chomsky 2001: 42, fn. 6). In this view, Concord would be a relation that holds between mergemates, whereas Agree links a Probe and a Goal at a structural distance (given co-membership + proper containment, as per the derivational definition of c-command in Chomsky 2000: 116). The distinction between Agree, which requires at least Minimal Search, plus Agree Link and Agree Copy (see Deal to appear, Smith et al. 2020: 10), and Concord (which presumably involves only Merge and Copy; see e.g. Carstens 2020: 87ff.) is upheld in some recent literature, and is relevant to the cases under consideration. 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 that in (9), where the values of attributes Number and Gender (there being no Person agreement) would be copied onto the head of AP, as argued earlier in this section.

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

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 (10a) but not (10b), since there is a set in (10b) that contains *b* but not *a*:

(10) a. $\{\{a\}, \{b\}\}$
b. $\{\{a\}, \{c, \{b\}\}\}$

[11] An exception (in some varieties, but not ours) has been observed by a reviewer:

i) Juan es un mierda
J. is a.SG.MASC shit
'J. is a piece of shit'

Whereas *mierda* 'shit' is lexically a feminine noun, in this specific context, some varieties allow a masculine determiner (in ours, a feminine determiner is required). It is important to note that even in these varieties, this construction aside, *mierda* always takes a feminine determiner.

An alternative analysis, presumably more Minimalist in its eliminative spirit, would dispense with Concord altogether, leaving only Agree. 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.* (Emphasis added)

In this context, Concord could apply in (10a), and Agree in (10b). That is just nominalism, though: the operation that applies to both objects, under Bruening's assumptions, 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 copy values between attributes in the grammar.

Suppose now that we do not want to identify a singleton set with its member, that we want to keep {alto} distinct from 'alto', where the former is a set and the latter is an urelement. Then, we could have the following:

(11) Los chicos son altos
The.MASC.PL boy.3PL.MASC be.3PL.PRES tall.3PL.MASC
'The boys are tall'

(12) {son, {{los, chicos}, altos}}

In (12) we assume that the predicate *altos* is a mergemate of its argument. If the First Merge involves a head and a phrase, the head should label, delivering the structure in (13).

(13) {altos, {{los, chicos}, altos}}} (cf. Stowell 1981: 262, Chomsky 1981: 106)[12]

This then Merges with the copula, which is labelled as in (14), and no labelling paradoxarises.

(14) {son, {son, {altos, {{los, chicos}, altos}}}}

The case of copular constructions with a predicative urelement also argues against the DA approach to subject raising: in that approach, symmetry points must be dissolved because they are not LCA-linearisable (Kayne 1994, Moro 2000, Moro and Roberts 2023). In this view, the heads X and Y of {XP, YP} cannot be strictly ordered with respect

[12] I assume here a principle of local association, such that if X is a predicate and Y is an argument, then Y must Merge with a projection of X (which can be X itself, particularly in a label-less system). See for example Larson (1988: 382) and much related GB work; also Castillo and Uriagereka (2002: 137).

to each other in terms of asymmetric c-command, and thus in terms of of linear precedence (which is a function of asymmetric c-command). 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, then DA-driven movement is PF-driven movement, given that precedence is a total order imposed over terminals. It is important to bear in mind that, unlike the 90s version of the theory, in which Spec-Head relations created by IM were the configurations within which feature checking took place, Agree and IM are currently entirely dissociated: Agree takes place between Probes and Goals at a distance (and even across phasal boundaries). This means that IM is either entirely unconstrained (Chomsky's position) 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 in specific languages or in general, is such an important aspect of Minimalist practice, and has been so since the early 2000s (see e.g. Boeckx 2000, Grohmann et al. 2000, Bošković 2002, Epstein and 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 ($x \neq \{x\}$), we start by Merging the set {los, chicos} with the non-set 'altos'. 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 the structure just built would be as in (15):

(15)	altos	los	chicos
	tall.3PL.MASC	the.PL.MASC	boy.3PL.MASC

However, the fact that it is "deviant", or, in Epstein et al.'s (2015c: xvi) terms, "gibberish" ("a convergent object that results in some semantically anomalous interpretation"; the term is also used by Chomsky 2015b: 8, with the same meaning) does not mean that the object {{los, chicos}, altos} is not unambiguously linearisable. As Chomsky (2020b: 166) emphasizes, "deviant expressions" (which do not violate formal conditions) are 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. Merge itself is not restricted by specific conditions: restrictions apply to the size of the workspace. For example, it increases by one at every derivational step and cannot decrease (see Fong et al. 2019; cf. also Marcolli et al. 2023, who assume non-planar trees rather than unordered).

2.2 Predicative DPs

A similar argument can be made with DPs instead of APs, but additional considerations about agreement are necessary:[13]

[13] Assuming Simplest Merge, it is unclear there would be any structural difference between identificational and predicational copular sentences (Chomsky 2013: 43–44 speaks of "copular structures" and "copular constructions" without distinguishing types). As we consider structures with and without a functional category in between terms, most, if not all, bases seem covered.

(16) a. El hombre era un ladrón
The man.3SG.MASC be.3SG.PAST.IMPF a thief.3SG.MASC
'The man was a thief'

b. Este chico es mi amigo
This boy.3SG.MASC be.3SG.PRES my friend.3SG.MASC
'This boy is my friend'

If no functional structure is assumed for the moment, we have two complex SO in a "small clause" symmetric configuration (Chomsky 2013: 44), shown in (17).

(17) a. {era, {{el, hombre}, {un, ladrón}}}
b. {es, {{este, chico}, {mi, amigo}}}

Note that we abstract from the internal structure of the possessive phrase *mi amigo* since it is inconsequential to our argument. Here too we necessarily have phi-agreement (and, as before, all features must share values), shown in (18).[14]

(18) a. *El hombre$_{\text{MASC}}$ era una ladrona$_{\text{FEM}}$
b. *El hombre$_{\text{SG}}$ era unos ladrones$_{\text{PL}}$
c. *Este chico$_{\text{MASC}}$ es mi amiga$_{\text{FEM}}$
d. *Este chico$_{\text{SG}}$ es mis amigos$_{\text{PL}}$

Evidently, if instead of *el hombre* or *este chico* we had *Juan*, and *Juan* was an urelement, it could label without any issues, so we will keep to strictly phrasal subjects (bearing in mind that the arguments would extend to Quine atoms). In connection with the previous discussion, note that even if we accepted that adjectives are phi-defective, we cannot say the same for DPs: *un ladrón* and *el hombre* should enter the derivation with valued, interpretable phi-features like any other DP (as they undoubtedly would if they appeared, say, as the subject of a transitive sentence). An additional problem appears, though: if we did take both DPs with valued interpretable phi features, we would only get agreeing DPs by chance. Considering only Person, Number, and Gender, we have three possible values for Person, two for Number, and two for Gender. If all combinations were allowed, given free untriggered Simplest Merge, most

[14] A reviewer calls to our attention an argument by Coon and Keine (2021: §4.1) that a certain featural mismatch between subject DP and nominal predicate is allowed in German, and suggests that this may apply to Spanish, invalidating the possibility of phi-labelling the {DP, DP} structure. So far as I can see, the argument does not hold. Subjects and predicative nominals in Spanish copular constructions must necessarily agree in person, number, and gender (with the exception noted in fn. 11).

of the outputs would be "deviant" and would have to be filtered out. Problems do not stop here. Suppose that we wanted to say that predicative DPs enter the derivation with unvalued interpretable phi-features, accepting Pesetsky and Torrego's (2007) argument that interpretability and valuation are dissociated (also in Zeijlstra 2020).[15] 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* but possibly *valued*), 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 (cf. *Juan es mi amigo* 'John is my friend', or *Juan era un ladrón* 'John was a professor': here, it is unquestionable that *mi amigo* or *un ladrón* agrees with *Juan*, not the other way around, as it is *amigo/a/os/as* and *ladrón/a/es/as* that have an inflectional paradigm). That kind of Look Ahead (accessing objects which have not yet been constructed) should not be available in a strongly derivational system, in particular considering Chomsky's (2021) claims about the Markovian character of derivations. Since we are going astray from our EPP discussion, we shall cut this digression short, but the problems noted in this paragraph remain.

Consider now the Italian case analyzed in Moro (2009), of which I provide an intermediate derivational step in (19):

(19) è [[una foto del muro] [la causa della rivolta]] (Italian)
be a picture of.the wall the cause of.the riot

Either DP may raise out of the bracketed small clause, yielding a canonical (20a) or an inverse (20b) copular sentence:

(20) a. Una foto del muro è la causa della rivolta
'A picture of the wall is the cause of the riot'
b. La causa della rivolta è una foto del muro
'The cause of the riot is a picture of the wall'

The Spanish facts are exactly parallel: the two DPs in Italian must agree as they do in Spanish. Thus (21a–b) are excluded:

(21) a. *Una foto$_{SG}$ del muro è$_{SG}$ le cause$_{PL}$ della rivolta (Italian)
b. *Una foto$_{SG}$ del muro es$_{SG}$ las causas$_{PL}$ de la revuelta (Spanish)

Moro argues that, for purposes of DA and labelling, "there is no necessity to raise either DP to the copula: it is sufficient that either one is raised to any head that merges with

[15] Specifically, Pesetsky and 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**

{XP, YP}, neutralizing the problem given by the absence of a label" (Moro 2009: 18). Indeed, Moro considers VP internal focalization as an example of internal Merge that, without targeting the copula itself, let alone T, dissolves a point of symmetry:

(22) a. [UNA FOTO DEL MURO Foc [*t* la causa della rivolta]] (Italian)
b. [LA CAUSA DELLA RIVOLTA Foc [una foto del muro *t*]]

Neither DP must raise further, and after insertion of the copula, Moro says, "pro-insertion can take place successfully, since the postcopular constituent is not unlabelled anymore" (2009: 18).

Let us now consider Moro's derivations under the assumptions spelled out in section 1. Under Simplest Merge, (22a–b) look like (23a–b), respectively:

(23) a. {{una foto del muro}, {Foc, {{una foto del muro}, {la causa della rivolta}}}}
b. {{la causa della rivolta}, {Foc, {{una foto del muro}, {la causa della rivolta}}}}

How exactly are those structures labelled? If we are able to label {XP, YP} without further raising, there must be a shared feature between the heads X and Y. It is not enough to raise a DP; it must be endowed with an appropriate "prominent" feature shared with the head Foc, otherwise it must keep raising (cf. discussions in Chomsky 2013 and Epstein et al. 2015b of successive cyclic *wh*-movement, which depends on intermediate C heads not bearing a Q feature). However, whereas Q is presumably a lexically valued feature in *wh*-words, it is harder to justify Foc being assigned in the lexicon (as Moro p.c. also observes), despite both Q and Foc being criterial features. As we just observed, the strictly local character of derivations prohibits the kind of Look Ahead required to foresee that a certain DP will receive a Focus interpretation. But without a Foc feature on either DP, labelling by a shared prominent feature cannot take place, and the prediction is that whichever DP has raised to Spec-Foc should keep moving up – and we have not even emphasized the fact that, as in the Spanish cases, agreement between both DPs is necessary, so nothing blocks <phi, phi> labelling under Chomsky's assumptions.

A further problem is posed by *pro*-insertion. The full structure Moro (2009: 18) proposes for the Italian-focused cases is (24):

(24) *pro* è [UNA FOTO DEL MURO Foc [*t* la causa della rivolta]]

Note that if we have {{una foto del muro}, {Foc, {{una foto del muro}, {la causa della rivolta}}}} labelled <Foc, Foc>, the introduction of the copula should label VP, as we now have a {H, XP} object. The next derivational step Merges T, and the resulting structure is labelled TP (Italian, as a null-subject language, has strong T). There being no labelling conflict in the structure, {T, {è, {{una foto del muro}, {Foc, {{una foto del muro}, {la causa della rivolta}}}}}} is a well-formed output. If there is *pro* insertion at

all, it cannot be motivated by labelling considerations. Given existing Minimalist tools, an EPP account seems hard to avoid.

Continuing our discussion about predicative DPs in copular sentences of the type *este chico es mi amigo*, we may consider the logically available possibility that <phi, phi> labelling is only available in cases of Agree, not Concord, if we wanted to keep the two operations separate, as in Chomsky (2001). If Concord is concomitant to Merge, unlike Agree, then <phi, phi> should not be available in copular constructions, since the morphologically agreeing phrases are mergemates, under the assumptions we have been working with so far. That argument may win the battle, but as far as I can tell it would lose the war: the cost of keeping labelling as a way to obtain DP raising is to admit a new operation, Concord, kept distinct from Agree (distinct enough that labelling can differentiate between their structural descriptions). That seems to me 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 (where F ranges over a feature type, such as <phi, phi> or <Q, Q>) is only available for SO that have been related via IM, not EM, to complete the available possibilities. This would require the LA to have access to the derivational history of a structure. Given current assumptions about what may happen at the phase level, this is not entirely unreasonable. If a pair of occurrences can be inspected to see if it respects the theta criterion or not, delivering, for example, the Chomsky (2021) raising vs. control distinction, part of that process may also involve marking the head of a chain and making that count for LA. This requires us to allow SOs 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 it must be stipulated 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. In other words, if you have two sets with common features, you must check whether one is the head of a chain. If so, label their combination as these common features. If not, abort labelling. Such information should not be available in strictly Markovian derivations.

An alternative analysis of copular constructions is available, whereby predication is not a direct relation between lexical categories under mergemate conditions. Suppose that, as in Bowers (1993, 2001), den Dikken (2006), Roy (2013), and many others, predication is necessarily mediated by a functional category, call it Pred (following Bowers). Can PredPs be invoked in the labelling-based eliminative argument against EPP? I think not. So far as I can see, PredPs do not help in rescuing the labelling approach to XP raising in copular sentences. Let us see why. Suppose that we Merge the predicative phrase – say, a DP – with a Pred head, as in (25):

(25) a. Merge(mi, amigo) = {mi, amigo}

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

Being an {H, XP} object, (25b) can be labelled Pred(P). The same holds, of course, for (16a).

In parallel, we construct the other DP in (26) (as is the case with all complex specifiers, for independently motivated reasons; see e.g. Uriagereka 2002):

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

Finally, we Merge the output of (26) and the SO defined in (25b), obtaining (27):

(27) 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. As a reviewer observes, (27) "[i]s of the form {XP, YP} with no shared features, thus creating a symmetry that ought to be resolved by movement, just as in Chomsky's LA account of the EPP". Either phrasal object would have to raise: if {este chico} moves, we obtain *este chico es mi amigo* (= (16)). However, observe that Pred or not, phi-agreement between *este chico* and *mi amigo* must necessarily hold (*mutatis mutandis* for *el hombre era un ladrón*). How can we make sure these phrases phi-agree? Given the fact that under a PredP analysis, they are not mergemates, it is unclear how Concord would work (if we kept the mechanisms of Concord separate from those of Agree, though see the quotation from Bruening 2020 in section 2). Without Concord, we could indeed generate {{este, $\text{chico}_{\text{MASC}}$}, {T, {es, {{este, $\text{chico}_{\text{MASC}}$}, {Pred, {mi, $\text{amigo}_{\text{MASC}}$}}}}}}, but also, say, *{{este, $\text{chico}_{\text{MASC}}$}, {T, {es, {{este, $\text{chico}_{\text{MASC}}$}, {Pred, {mi, $\text{amiga}_{\text{FEM}}$}}}}}} and any other mismatching combination of phi-features. The derivation of copular sentences under these assumptions would entail the generation of multiple unusable structures, which we deem undesirable on theoretical and empirical grounds (see also Ginsburg 2016: fn. 14).

Concord cannot apply since the DPs are not mergemates, so let us now turn to Agree. Suppose that the predicative DP enters the derivation with unvalued phi-features. This is in itself a problematic stipulation, 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 (again, an evident Look Ahead problem). Unless reverse Agree is allowed (as in Zeijlstra 2012), the unvalued features in the predicative DP cannot probe the valued features in the argumental DP. The argumental DP has no reason to probe, since by hypothesis it enters the derivation with valued phi-features, the features that T will probe for. As a side comment, no labelling-based argument against the EPP that I know of makes use of reverse Agree.[16]

We could, alternatively, say that the unvalued features of the predicative DP percolate to the complex object {Pred, {DP}} and get valued via Concord – but an example such as (28) highlights the problem with such an assumption.

(28) {{este, chico}, {Pred, {mi, amigo}}}

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

Nothing prevents (28) from being labelled as <phi, phi>, since the values of the phi-features of *este chico* can be copied to its mergemate, delivering an object with shared features (the same argument holds if instead of a DP we have a complex AP). It is unclear whether Pred bears unvalued phi-features, and I have found nothing that clarifies this issue.

3. Conclusions

A cautionary note is in order. The arguments presented in this article against a reduction of EPP to labelling, all of them based on everyday Spanish data using predicational and specificational copular constructions, do not preclude there being a problem with an XP-YP unit. They only point out 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. Thus, the claim that EPP effects in these constructions are subsumed to labelling failures is unsubstantiated. This is not a positive argument in favour of the existence of EPP, nor does it entail that labelling does not have other problems.

Symmetric syntactic objects are problematic in some forms of Minimalism, independently of labelling. 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; Moro and Roberts 2023). There is also a type-theoretic problem, as noted in Bowers (1993) 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 article. The point I want to make is that, given the fact that there is no labelling issue in the Spanish structures considered here, it is not possible to use labelling as a justification for phrase raising. Thus, the argument that EPP effects in these structures can be reduced to labelling failures carries little if any force. Again, this does not amount to an argument in favour of the existence of an EPP feature (or an EPP "property" of specific features, cf. Goodall 2001: 213), which would require independent argumentation.

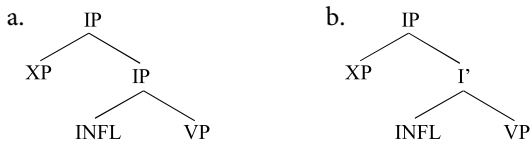
As a reviewer points out, independent arguments should be provided to show that phrase does indeed raise in the relevant constructions, in that there are reasons to think that the EPP is not active in null-subject languages. We could attempt to justify subject raising to Spec-T by using a periphrastic construction in combination with our copulas:

(29)	a. Juan	ha	sido	mi	amigo
	J.	have.3SG.PRES	be.PART	my	friend
	'Juan has been my friend'				
	b. Juan	puede	ser	mi	amigo
	J.	can.3SG.PRES	be.INF	my	friend
	'Juan can be my friend'				
	c. *Ha Juan sido mi amigo				
	d. *Puede Juan ser mi amigo				

It seems that no matter what phrase P has auxiliaries as heads (traditionally, INFL/T), the subject raises to a position external to the head of P; following our earlier argument, there is no labelling problem within the VP that motivates raising. However, this does not settle the question of what exactly this "P-external" position is: are we certain *Juan* appears in Spec-INFL/T? Is there such a position available to begin with?

Indeed, Contreras (1991), for instance, argues that in Spanish INFL is a lexical category, and as such does not project a specifier (only functional categories project specifiers in his system). Lexical AGR in INFL can also case-mark *pro* in-situ within the VP, with subjects able to adjoin to IP rather than raise to Spec-IP. The idea is developed in Alexiadou and Anagnostopoulou (1998) and much subsequent work. However, it is unclear how to translate the claim that AgrS/IP projects no specifier and thus pre-verbal subjects in null subject languages are in an A' position into Simplest Merge terms: unless labels are set members (as in Epstein 2000: 148), capturing the segment-category distinction in the syntax is not straightforward. In other words, under Simplest Merge there seems to be no real way to distinguish between (30a) and (30b):

(30)



In both cases, the corresponding set-theoretic object would be (31) below, as IP and I' are not syntactic objects (Seely 2006, Collins 2017, Chomsky et al. 2023, among many others):

(31) {{X…}, {INFL, {V…}}}

A relational definition of phrase structure "levels" (such as that advanced in Chomsky 2015a: 242 and Nunes 1998: 160) refers to *projection*, a notion no longer available. 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 and Seely (2006: 10) identify redundancies between the EPP and the following mechanisms:

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

These specific earlier arguments do not necessarily carry over to contemporary Minimalism, given how some simplicity/economy metrics have changed. For example,

Epstein and Seely (2006) work under the assumption, standard at the time, that Merge is simpler than Move (Merge-over-Move, see Chomsky 2000: 101), whereas Chomsky (2020a, 2020b, 2021) argues that Move (IM) is preferable to Merge (EM) insofar as it only works with what is available in the workspace, thus restricting the search space. Similarly, part of Epstein and Seely's 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, also assumed in Bošković's (2002) "Inverse Case Filter" argument), a notion that plays no role under current assumptions. Considering the relation of phi-agreement between T and DP (which should be followed by IM of DP to Spec-T), Epstein et al. (2015a: 20) 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 (2015b, 2020b) that IM (like EM) needs no motivation, featural or otherwise; that anything accessible in WS can be internally Merged at the root, freely, without regard for creating an interpretable object or repairing local violations. Merge applies blindly, Merge applies blindly – as Ovid would say, *sponte sua, sine lege*.

Other arguments require additional assumptions that are controversial in their own right. Gallego (2017), for instance, assumes that C and T are one and the same category, and that the invisibility of T for labelling purposes in English is not due to T being "weak", but due to it being a "copy" of C. Space restrictions prevent us from dealing with this proposal in depth, but note that it is necessary to assume T independently from C, for CP-less structures. If T is a copy of C, then no C would mean no T, and no EPP effects. However, if we consider raising-to-object structures (Postal 1974, Chomsky 2021: 24), under an ECM analysis, the raised DP must appear in Spec-TP in the downstairs clause, preceding infinitival *to*:

(32) a. Quentin expected Beatrix to kill Bill
b. *Quentin expected to Beatrix kill Bill

If the clausal complements of raising-to-object verbs are structurally defective in not having a C layer (following Chomsky 2000, 2021), the fact that *Beatrix* does not stay within the *v*P domain but raises (at least) to Spec-*to* remains unexplained. But suppose that raising-to-object is analyzed as involving DP raising to the matrix VP, which would make it very hard to diagnose the collapse of C and T into a single category. If this is the case, can Gallego's hypothesis be maintained? I believe not, due to independent problems. Assuming that C and T are "bundled" in languages like Spanish makes it difficult to provide adequate analyses for sequences of auxiliary verbs (so-called *auxiliary chains*) and the positions of subjects in cases such as (33) (see Krivochen and García Fernández 2019 for detailed discussion and analysis):

(33) a. **Juan** *podría* *estar* haciendo eso a Pedro
(**leftwards subject**)
J. could.3SG be.INF do.GER that to P.
'Juan could be doing that to Pedro'
b. ¿A quién *podría* **Juan** *estar* haciendo eso?
(**intermediate subject 1**)
To whom could J. be doing that
c. ¿A quién *podría* *estar* **Juan** haciendo eso?
(**intermediate subject 2**)
To whom could be J. doing that
d. ¿A quién *podría* *estar* haciendo **Juan** eso?
(**rightwards subject 1**)
To whom could be doing J. that
e. ¿A quién *podría* *estar* haciendo eso **Juan**?
(**rightwards subject 2**)
To whom could be doing that J.
'To whom could J. be doing that?'

In my opinion, Gallego's proposal exemplifies the scenario in which the elimination of EPP on labelling grounds causes more problems than it appears to solve.

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, consider EPP vs. Case. As mentioned above, Bošković (2002) adjudicates in favour of Case theory with his Inverse Case Filter, which relies on Spec-Head relations available in checking theory (rather than Agree or Move-F) and requires additional assumptions about the relation between structural and inherent Case – for instance, that accusative case can be either structural (for a DP in Spec-AgrOP) or inherent (in Compl-V) (see Bošković 2002: 212). McFadden (2002), in contrast, proposes that the redundancies between EPP and Case should be resolved by eliminating syntactic Case rather than the EPP, making it exclusively post-syntactic, along the lines of Marantz (2000) (see also Chomsky et al. 2019). Considering the arguments put forth here 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, the reports of the EPP's death seem to have been greatly exaggerated.

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