

## Ellipsis by Phase

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**1. GOAL:** Recent literature exploring the framework of phases ([4,5]) has provided empirical arguments supporting the thesis that these units display the relevant syntax-PF mapping. In particular, this connection has been shown in the case of: (i) fronting ([4]), (ii)  $\phi$ -domain creation ([2]), (iii) stress assignment ([10]), (iv) weak pronoun placement ([18]), and linearization ([7]). This paper argues that, together with these facts, *ellipsis* (understood as PF-deletion; [12,14]) provides independent evidence that the syntactic domains transferred to the phonological component have a special status in terms of PF operations, thus reinforcing the EST/Y-model architecture, whose essential properties are preserved within *Phase Theory*.

**2. PROPOSAL AND ADVANTAGES:** This paper argues in favor of the hypothesis in (1), which takes [4,5]'s cyclic *Transfer* as the key factor to ellipsis. Pursuing the idea that all cycles act 'in tandem' ([4,5]'s *Single-Output Syntax*), and taking ellipsis to be PF-deletion ([12,14]), (1) predicts that only the complement of phase heads can be ellided. In a theory where CP and v\*P are the relevant phases/cycles, this amounts to TP and VP being ellidable, an outcome consistent with the data in (2).

(1) Ellipsis targets the *Transfer* domain of the phases.

(2) a. John sings, and Peter does  $\{_{VP} \text{sing}\}$  too.

*VP ellipsis*

b. John called someone, but I do not know who  $\{_{TP} \text{John called } t_{\text{who}}\}$  *TP ellipsis (sluicing)*

The main advantage of an account like that in (1) is its predictive power: if (1) is on track, then we have a straightforward rationale for the domains affected by ellipsis to be the ones they are, and not others. In a proposal like, e.g., [14]'s, it is not immediately obvious why, say, CP or DP cannot (entirely) undergo ellipsis, since [14]'s E-feature could be assigned to any XP, triggering deletion. Under (1), this gap can readily be accounted for: we have TP and VP deletion because, quite simply, those are the units that are cyclically submitted to the PF component.

**3. EMPIRICAL PROBLEMS:** (1) has independently been explored by [8], who combines [14]'s E-feature assignment with [4,5]'s cyclic *Transfer* to account for VP, TP, and NP deletion. Due to observations by [15]'s, though, [8] contends that (1) does not make the right predictions in the case of pseudogapping, for this variety of VP ellipsis requires deletion of the entire v\*P. Both [15] and [8] go on to analyze pseudogapping as deletion of v\*P after movement of the remnant DP to the SPEC of a FocusP above v\*P (see 3, which shows that the ellipsis site and its antecedent must have the same voice specification, which [15] takes to indicate pseudogapping targets v\*P).

(3) \*Some bought roses, and lilies were by others.

**4. EXTENDING THE PROPOSAL:** Here we would like to defend (1) and extend it not only to cover the cases raised by [15], but also to further instances where (1) should hold: (a) the complement of so-called weak phases ([5]), and (b) the complement of phases other than CP and v\*P. Consider these cases one by one. That the domain of defective phases patterns in accord to (1) is confirmed by the data in (4), where the complement of passive/unaccusative v undergoes deletion.

(4) a. John died twenty years ago, and Bill did  $\{_{VP} \text{die}\}$  too.

b. There were many students arrested, and there were many teachers  $\{_{VP} \text{arrested } t_{\text{many teachers}}\}$  too.

As for phases other than CP and v\*P, we assume (5), which enlarges the list of phases to incorporate DP ([20]; and DegP, its adjectival counterpart), and PP ([1,16,22]).

(5) Phase heads are the *locus* of uninterpretable morphology (in line with [4,5])

If this is on track, then one expects for the complement of D, Deg, and P to be ellidable, much like the complements of C and v\* are. The facts in (6) show that this is indeed borne out. We take (6b) and (6c) to be the most interesting cases, as they have not been reported in connection to (1) in the literature we are familiar with.

(6) a. I saw  $\{_{DP} \text{a black one } t_{\text{rabbit}}\}$  yesterday.

*D's complement*

b. John is nice, but his wife even  $\{_{DegP} \text{more so } t_{\text{AP nice}}\}$ .

*Deg's complement*

c. John cooked the meat with garlic, and Peter did  $\{_{VP} \text{cook the meat}\}$   $\{_{PP} \text{without } t_{\text{NP garlic}}\}$ . *P's complement*

As the paradigm in (7) indicates, the (6c) subcase is largely ruled by phonological factors: weak (= monosyllabic) prepositions fail to license ellipsis, but strong ones do not. Crucially, if D and P are phase heads, then D should feature a similar behavior, and it does when D adopts a clitic guise (see 8, from [17]).

(7) a. \*El rey lo hace todo por el pueblo, pero  $\{_{PP} \text{sin } t_{\text{DP el pueblo}}\}$  (Spanish)  
the king CL-it do<sub>3SG</sub> all for the people but without the people  
'The king does everything for the people, but without (them)'

b. Pedro habló antes del partido, y yo lo hice  $\{_{PP} \text{durante } t_{\text{DP el partido}}\}$  (Spanish)  
Pedro talked<sub>3SG</sub> before of-the game, and I CL-it did<sub>3SG</sub> during the game  
'Peter did not talk during the game, and I did during (the game)'

(8) No compré la aspirina corriente, pero compré la \*(efervescente). (Spanish)  
not bought<sub>3SG</sub> the aspirin regular but bought<sub>3SG</sub> the effervescent  
'I did not buy the regular aspirin, but I did the effervescent one'

To conclude our defense of (1), let us now go back to pseudogapping. The problem, as noted, is the following: pseudogapping apparently involves deletion of the whole v\*P, as this is the only way to capture the requirement that voice (encoded in v\*, according to [15]) must be the same in both the antecedent and the ellipsis sites. To get around this, we need for v\* to be within the *Transfer* domain (at first glance, *contra* [5]). Despite appearances to the contrary, we want to claim that there is nothing in the logic of [4,5]'s framework precluding v\* from being transferred together with the VP: to be sure, this is not what we have

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in the simple scenario of (9a), but it is technically possible in a scenario such as (9b), where there are extra heads, the role of which would be akin to that of [8]'s Focus: providing a landing site for the remnant DP, allowing successive cyclic movement, and, crucially, making 'more room' so that  $v^*$  (which would otherwise be transferred in the next cycle) can fall within the *Transfer* zone, as required.

(9) a. [Subj.  $v^*$  [V Obj.]] *simple scenario (Transfer VP)* b. [Obj. X [Subj.  $v^*$  [V  $t_{Obj}$ .]]] *complex scenario (Transfer  $v^*P$ )*

That the option in (9b) can be entertained naturally follows from [4,5]'s formulation of cyclic *Transfer*, which is concerned with  $\phi$ -feature deletion. Since deletion is part of *Transfer* ([19]), all the system has to make sure is that  $\phi$ -features are within the complement domain. In the (9b) case, this can include  $v^*P$ , for there is one extra projection ( $XP=[8]$ 's FocusP) that still provides a way to capture "meaningful computation" (i.e. [4,5]'s idea that *Transfer* cannot spell-out the entire phase, a residue must be kept for computation to continue unfolding). Note that a problem similar to (3) is posed by (10), which features comparative deletion ([9]):

(10) John is taller than [<sub>CP</sub> OP [<sub>TP</sub> Mary is-<sub>TOP</sub> tall ] ]

At first glance, (10) appears to be a problem for (1), since the TP cannot be deleted –given the position *Mary* occupies. Yet again, a way to make (10) compatible with (1) is to assume *Mary* is not in SPEC-T, but in a higher, focus-related, projection within the CP layer. If this is tenable, then we can keep the formulation in (1).

**5. A NOTE ON ROMANCE AND VERB MOVEMENT:** Finally, let us consider one other problematic case for (1), namely the well-known fact that Romance disallows VP ellipsis (see 11):

(11) \*La Maria no ha trucat en Pere, però en Lluís ha ~~{<sub>VP</sub> trucat en Pere}~~ (Catalan)  
the Maria not have<sub>3SG</sub> called the Pere but the Lluís have<sub>3SG</sub> called the Pere  
'Maria has not called Pere, but Lluís has'

In the GB literature, this fact was related, in one form or another, to verb movement ([13,23]). Keeping this intuition intact, we would like to propose (12) ([21]), a formulation reminiscent of [12]'s (13), which goes back to the idea that movement of the head of a phrase (=phase, barrier, bounding node) somehow removes its locality properties ([3]).

(12) Verb movement bleeds VP ellipsis. (13) XP ellipsis is prohibited if XP has lost its head.

To recast (12)-(13) in phase-based terms, we argue that verb movement triggers a process of *phase extension* ([6]) that redefines the edge-complement cut, having a key effect in the amount of structure that is transferred. Adopting [4]'s weak version of the PIC, it is possible for  $v^*$ -to-T movement to take place before VP *Transfer* does; if so, then once the verb has moved to T, the complement domain of  $v^*$  is no longer VP, and so VP ellipsis is no longer possible, under (1). A problem for this analysis –noted by [12]– concerns the puzzling behavior of languages such as European Portuguese, which has verb movement, but features VP ellipsis regardless, as shown in (14). To get around this, we argue that (14) does not have to be analyzed as VP ellipsis *a fortiori*: assuming the verb has moved to a projection above T in this language ([17]'s FP), the complement of this extra head could perfectly be TP itself, as independently argued by [11].

(14) A: Viste o João? B: Vi. (E. Portuguese)  
saw<sub>2SG</sub> the João saw<sub>1SG</sub>  
'Did you see João?' 'Yes, I did'

**6. CONCLUSION:** This paper puts forward a hypothesis that connects ellipsis and [4,5]'s conception of the cycle, *Phase Theory*. As we have argued, an appealing trait of such a hypothesis is that it gives a rationale for ellipsis domains to be the ones they are: viewing ellipsis as PF deletion, it makes sense for this operation to be related to the domains that are cyclically submitted to the PF component. If this idea is correct, both [13]'s and [14]'s accounts can be dispensed with: a welcome conclusion, since they resort to technical devices (E-features, government, etc.) that depart from *inclusiveness*.

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