Morphology of extraction: Reappraising vP phasehood

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Claim: An important question of phase theory is which heads are phasal. There is a fair amount of consensus that CP constitutes a phase, but the identity and distribution of other phase heads is much less securely established. We focus on one type of argument for vP phases—morphological alternations in Defaka and Dinka—and develop an account that does not attribute them to successive-cyclic movement and hence phasehood. Our alternative account attributes these alternations to a structural-adjacency condition on the realization of Agree chains. We argue that this account overcomes certain problems that vP-phase accounts face. Consequently, morphological alternations triggered by local subjects vs. other phrases no longer constitute an argument for vP phasehood.

Defaka: We first consider focus fronting in Defaka (Bennett et al. 2012). In Defeka, maximally one XP may be fronted. If a local subject is focus-fronted as in (1b), the focus marker *kò* appears. By contrast, if an object is fronted, as in (1c), the focus marker *ndò* appears next to it, and verb is marked with the suffix *-kè*. Other fronted elements, such as adjuncts, pattern with objects.

(1) a. ì Bòmá ésé-kà-rè
I Boma see-FUT-NEG
'I will not see Boma.'

b. ì **kò** Bòmá ésé-kà-rè
I **FOC.SUBJ** Boma see-FUT-NEG
'I will not see Boma.'

c. Bòmá **ndò** ì ésé-kà-rè-**kè**
Boma **FOC** I see-FUT-NEG-**KE**
'I will not see Boma.'

Crossclausal movement of subjects produces the pattern in (1c) in the matrix clause, shown in (2).

(2) Bruce$_i$ **ndò/*kò** Bòmá jírí-***(kè)** [$_{CP}$ t_i á ésé-mà]
Bruce **FOC/*FOC.SUBJ** Boma know-***(KE)** her see-NFUT
'Boma knows (that) Bruce saw her.'

The pattern is analogous in embedded clauses (hence no *kè* on *ésé-mà* in (2)). Bennett et al. (2012) argue that the distribution of *kè* provides evidence for vP phases. They propose that focus extraction of any element that is not located at the vP edge requires it to move there in order to leave the vP phase. *kè* is then analyzed as reflecting this intermediate movement. Due to vP's phasehood, such movement is required for nonsubjects and nonlocal subjects but not for local subjects, which are base-generated at the vP edge. One challenge to such an account is that adjunct fronting also triggers *kè,* i.e., the split is between subjects on the one hand and everything else on the other. While adjunction to VP is of course plausible, a vP-phase-based account would require that *all* adjoined material must adjoin to VP (hence needing to proceed through Spec,vP). This seems too strong a claim. The crucial empirical split between local subjects and everything else hence does not align neatly with the phase-based distinction between the vP edge and VP-internal material.

Proposal: We propose an reanalysis of the distribution of *kè* that does not invoke vP phases, but rather attributes it to an adjacency condition on Agree chains. We draw on recent proposals by Arregi & Nevins (2012), Bhatt & Walkow (2013), and others, according to which Agree is split into two components. Using Arregi & Nevins' (2012) terminology, *Agree-Link* establishes a link between a probe and a goal element in the syntax. This link represents a permanent dependency between the two that is carried over into the PF component. There, *Agree-Copy* copies features based on established Agree-Links. If Agree-Links are carried into the PF component, then they should be able to condition the morphological realization of syntactic structure. We suggest that this underlies the morphological alternation above and propose the language-specific condition (3).

(3) If a probe P stands in an Agree-Link with an element X, P realizes as ∅ if there is no specifier distinct from X that intervenes between P and the closest higher copy of X.

(3) represents a condition on the morphological realization of a probe P that stands in an Agree-Link with another element X. Normally, P's features receive overt exponence, but if P is sufficiently close to X (i.e., no distinct specifier intervenes), P is not morphologically realized. For concreteness, we

adopt the clause structure CP > TP > FocP > vP > VP. Foc hosts a focus probe [∗Foc∗], which agrees with a focus-bearing DP before this DP undergoes movement to Spec,CP. The subject moves to Spec,TP irrespective of considerations of focus, as is standard. Consider first the case of a focused object (1c). Here, [∗Foc∗] establishes an Agree-Link with the object, which subsequently moves to Spec,CP. Because the subject in Spec,TP intervenes between the two, the condition in (3) is hence not met, and the Foc head is realized as *kè,* see (4). Note that there is no clause-internal successive cyclicity in (4). In particular, the object does not move through Spec,FocP (or else (3) would be met).

(4) $[_{\text{CP}}\ [\text{Bòmá } ndò]^{[\text{Foc}]}_{i}\ [_{\text{TP}}\ \underline{\text{DP}_{\text{subj}}}\ [_{\text{FocP}}\ [_{\text{vP}}\ \ldots\ t_i\ ]\ \text{Foc}^{0}_{[*\text{Foc}*]}(\rightarrow kè)\ ]]]$ *nonsubject fronting (1c)*

The same situation arises in nonlocal subject questions (2) because the matrix subject intervenes between Foc and the focused DP in Spec,CP. It also arises with fronted adjuncts, regardless of whether these adjuncts are base-generated VP-internally or VP-externally. This overcomes the limitation of vP-phase-based accounts above. The structure of local subject questions (1b) is shown in (5). Here, [∗Foc∗] is Agree-linked to the subject *ì kò*, which moves to Spec,TP and then Spec,CP:

(5) $[_{\text{CP}}\ [\underline{\text{ì } kò}]^{[\text{Foc}]}_{i}\ [_{\text{TP}}\ t_i\ [_{\text{FocP}}\ [_{\text{vP}}\ t_i\ \ldots\ ]\ \text{Foc}^{0}_{[*\text{Foc}*]}\ (\rightarrow \varnothing)\ ]]]$ *local subject fronting (1b)*

Crucially, Spec,TP is not filled with an element distinct from *ì kò* in (5). Consequently, no distinct specifier intervenes between [∗Foc∗] and its Agree-linked DP. The condition in (3) is hence met, and the Foc head is realized as ∅, bleeding *kè*. Furthermore, note that long subject extraction does not lead to *kè* in the embedded clause (2). This is accounted for if such movement must proceed successive-cyclically through the embedded Spec,CP, hence if CP is a phase. In order to account for the alternation between *ndò* and *kò* on the fronted element, we suggest that these are different morphological realizations of the [∗Foc∗] feature on the DP. The particle *ndò* realizes [Foc]; *kò* realizes [Foc] plus some subject-specific feature, e.g., nominative case. Finally, if the clause does not contain a focused DP (as in (1a)), [∗Foc∗] does not establish an Agree-Link with any element, leaving [∗Foc∗] unvalued, or even absent, hence not overtly realized.

Dinka: We propose that the same line of analysis extends to other morphological effects that have been analyzed in terms of successive-cyclic movement through Spec,vP. In Dinka, if a plural object is Ā-moved to Spec,CP, an additional marker *ké* appears in the vP domain (van Urk & Richards 2015, van Urk 2015, 2018). *ké* also appears with PP extraction, but not with local subject extraction.

(6) Yeyínà cíi Bôl ***(ké)** tîŋ?
who.PL PRF.NS Bol.GEN ***(PL)** see 'Who all did Bol see?'

Van Urk & Richards (2015) and van Urk (2015, 2018) analyze the emergence of *ké* as a marker of successive-cyclic movement through Spec,vP. As an alternative, we extend our account of Defaka to Dinka, the only relevant difference being that Foc is left-headed in Dinka. In an object question like (6), the subject *Bôl* intervenes between Foc and *yeyínà.* Assuming that [∗Foc∗]-Agree copies the DP's number feature, *ké* realizes a plural value.

(7) $[_{\text{CP}}\ [\underline{\text{yeyínà}}]^{[\text{Foc}]}_{i}\ [_{\text{TP}}\ \underline{\text{Bôl}}\ [_{\text{FocP}}\ \text{Foc}^{0}_{[*\text{Foc}*]}\ (\rightarrow ké)\ [_{\text{vP}}\ \ldots\ t_i\ ]\ ]]]$

Just as in Defaka, no *ké* shows up in local subject questions because Spec,TP is filled by an unpronounced copy of the subject, and the adjacency condition in (3) is hence met.

Consequences: The morphological realization of agreeing heads may be affected by the structural proximity between these heads and Agree-linked elements. This account derives the pervasive subject–nonsubject split without appeal to vP phases. Morphological alternations then no longer constitute an argument for the phasehood of vP. This contrasts with CP phases, which play a crucial role in the account of (2). In conjunction with some recent literature that has called other arguments for vP phases into question—like a filled-position effect in Dinka (see Keine 2016, den Dikken 2017)—, the status of vP appears more poorly motivated than generally assumed.