

The Clause-Medial ν P Phase is Real: Evidence from Moselle Franconian

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Abstract. Since Chomsky (2000, 2001) it is often assumed that syntactic derivations proceed in *phases*. Under the traditional view, ν P as well as CP are phasal. However, recent work has called into question whether the ν P constitutes a phase at all (Keine 2017, 2020; Keine & Zeijlstra 2020). We argue on the basis of verb-second word-order data from Moselle Franconian, a Germanic variety spoken in the Central Franconian language area, that ν P is indeed phasal. V2-fronting can only target constituents that can independently appear above the ν P-phase, whereas constituents below the ν P-phase are off-limit, in accordance with the Phase Impenetrability Condition (Chomsky 2000, 2001). We argue that ν P therefore must be a phase, at least in Moselle Franconian. Moreover, we propose that there is cross-linguistic variation in the distribution of probes driving intermediate movement on phasal heads. When intermediate probing is allowed, it consistently veils the effects of ν P-phasehood. Hence, if most languages allow for intermediate probing by ν , it is not surprising, even under a view that maintains that ν P-phasehood is universal, that direct evidence for ν P-phase effects are hard to come by.

Keywords. ν P phases; verb-second; intermediate probing; Germanic; Moselle Franconian

1. Introduction. In this paper we defend the view that the clause-medial ν P phase is real on the basis of a range of verb-second (V2) word-order facts in Moselle Franconian (MosFranc)¹. We argue that cross-linguistic variation in the distribution of intermediate probes on phase heads accounts for the variation in visible phasehood effects. Typically, the choice of preverbal constituent in Germanic V2 word-order languages is fairly unrestricted. In Swedish, for example, any of the following types of constituents (among others) may front to the initial pre-verbal position: subjects (1a), definite objects (1b), indefinite objects (1c), high adverbs such as probability adverbials (1d), and low adverbs such as manner adverbs (1e)². indefinite object)

(1) *Swedish V2 allows a wide range of constituent-types in initial position*

- a. Kalle hittar inte nycklar-na (subject)
Carl finds not keys-the
'Carl isn't finding his keys.'

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¹ Moselle Franconian (German: Moselfränkisch, Luxembourgish: Muselfränkesch) is a regional dialect spoken in the Central Franconian language area in the southern Rhineland, Germany and Luxembourg. The majority of Moselle Franconian speakers are multilingual and also speak closely related languages, such as German and Luxembourgish. Our data comes from a native speaker of the Eifelisch dialect of Moselle Franconian who grew up in Prümzurley in the southern Eifel in Germany. We thank our consultant, Michael Göbel, for his patience and blunt honesty during elicitation. We note that the data here represents the judgements of one consultant, and call for further empirical work on word-order patterns in understudied varieties of Germanic languages.

² Swedish grammaticality judgments belong to the first author.

- b. Tårtor-na köpte Maria för Kalle-s kalas (definite object)
 cake-the bought Maria for Carl-POSS party
 ‘Maria bought the cakes for Carl’s party.’
- c. Ett äpple behöver jag köpa (indefinite object)
 a apple need I buy
 ‘I need to buy an apple.’
- d. Kanske kommer han om du påminner honom (probability adverb)
 maybe come he if you remind him
 ‘Maybe he’ll come if you remind him.’
- e. Snabbt åt han tårta-n (manner adverb)
 quickly ate he cake-the
 ‘He ate the cake quickly.’

Like Swedish, Moselle Franconian allows a range of constituent-types to precede the second-position finite verb, like subjects (2a), definite objects (2b), or PPs (2c).

(2) *Subjects, definite objects and PPs front in MosFranc*

- a. Dehn Thoemmes will ehn Auto (subject)
 the Thomas wants an car
 ‘Thomas wants a car.’
- b. Dat Bähr trinkt dehn Möschel (definite object)
 the beer drinks the Möschel
 ‘Möschel is drinking the beer.’
- c. Um 2 Uhr kähft dehn Thoemess ehn Auto (PP)
 at 2 hour buys the Thomas an car
 ‘At 2pm, Thomas is buying a car.’

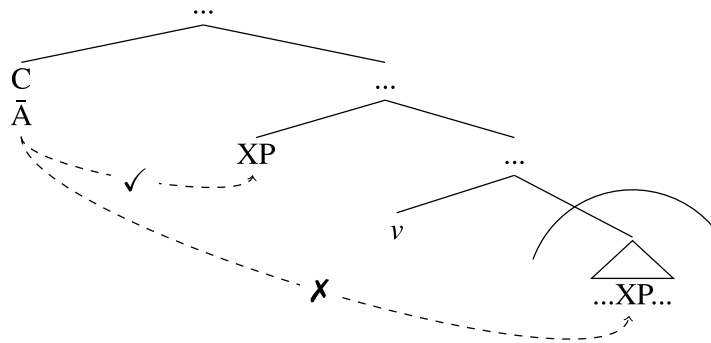
However, a closer look reveals an unattested V2 word-order pattern. Whereas subjects (2a), definite objects (2b), and high adjuncts such as time-adverbials (2c) can front, low adverbs, like manner adverbs (3a) and indefinite objects (3b) resist fronting.

(3) *Manner adverbs and indefinite objects do not front in MosFranc*

- a. *Lohs ehsst deh Mahn dehn Knoedel (manner adverb)
 slowly eats the man the Knoedel
 ‘Slowly, the man is eating the Knoedel.’
- b. *Ehn Knoedel ehsst deh Mahn (indefinite object)
 a Knoedel eats the man
 ‘A Knödel, the man is eating.’

We argue that this pattern reflects the presence of a clause-medial vP -phase. We follow standard assumptions that V2 word-order is instantiated via an \bar{A} -probe on C. This \bar{A} -probe moves one constituent hosting the relevant \bar{A} -feature in its search-space to SpecCP, satisfying the EPP feature on C. External arguments and high-adjoining adjuncts are base-generated above the clause-medial phase, and hence accessible to the probe on C. However, low adverbs and objects, base-generated below the clause-medial phase, remain inaccessible to the higher probe, as schematized in (4).

(4)



Definite objects, then, pose an apparent challenge to this analysis. We argue that definite objects circumvent the PIC due to the availability of scrambling, which independently places the definite object above the vP phase.

Having described both the basic pattern and analysis, we turn now in §2 to a brief overview of the conceptual and empirical motivations in favour of C and v as phasal heads. In §3 we outline our proposal for capturing the MosFranc facts and the cross-linguistic variation in V2-languages. §4 argues against an alternative proposal which attempts to capture the pattern as an instance of relativized minimality wherein the probe on C is unable to agree with any syntactic objects below the structurally highest DP. §5 discusses briefly the patterning of intransitives, passives, and long-distance fronting in Moselle Franconian. Finally, §6 concludes the paper.

2. Background. It is by now commonplace in generative syntactic literature to appeal to *phases*. Under modern conceptions of this approach, once a head induces Spell-Out of its complement, the complement is removed from the workspace and hence no longer accessible to operations in the narrow syntax, expressed by the Phase Impenetrability Condition in (5).

(5) *Phase Impenetrability Condition*

In a phase α with head H , the domain of H is not accessible to operations outside α , only H and its edge are accessible to such operations.

(Chomsky 2000:108)

A phasal theory of syntax, then, provides evidence that language is designed so as to reduce computational burden, with the computation being bounded up to the next phase (e.g. Chomsky 2001:15). That some notion of phasehood is necessary in syntax is fairly uncontroversial in the generative syntactic literature. However, specifically which heads are phasal, and the universality of their phasal status, is debated. Empirically, primarily two types of evidence have been used to argue in favour of phasehood: (i) *impenetrability effects*, and (ii) *successive-cyclicity effects*. Impenetrability effects show that a syntactic operation is blocked from accessing syntactic objects within a spelled-out phase. If dependencies across a phase are not possible, then agreement and extraction from within that phase should also be impossible. Successive-cyclicity effects, on the other hand, show that an element has moved through the specifier of a phase on its way to a higher landing-site. These effects are meant to indirectly diagnose the presence of a phase-edge in so far as movement to the phase-edge allows a syntactic object to escape the phase, and hence remain accessible to further syntactic operations. If such movement is obligatory in order to escape a phase, then this intermediate movement step is expected.

Recently, the validity of using successive-cyclicity effects as evidence for the presence of a phase boundary has come into question (Keine 2017, 2020; Keine & Zeijlstra 2020). Under the

assumption that intermediate movement is probe-driven (see e.g., van Urk 2020), successive-cyclicity effects can no longer be seen as direct evidence of phasehood. If there is a probe that drives the intermediate movement step then there is no way of independently verifying the presence of a phase-boundary, since the probe itself captures the visible effects. Although both impenetrability and successive-cyclicity effects have been demonstrated for CP-phases, to our knowledge, only successive-cyclicity effects have been documented for ν P phases. Our analysis of Moselle Franconian fills this gap in the literature.

Empirical evidence in favour of CP phases exhibiting impenetrability effects comes primarily from cases of long-distance agreement (LDA) in Tsez (Polinsky & Potsdam 2001) and Innu-aimun (Branigan & MacKenzie 2002). Polinsky & Potsdam (2001), for example, show that in Tsez an absolutive argument in an embedded clause can control verbal agreement in the matrix clause if it is a topic or a *wh*-element. They argue that topics first move to a dedicated \bar{A} -projection at the edge of the embedded clause (i.e. SpecCP). So, if an embedded absolutive DP first topicalizes it will control agreement on the matrix verb (class III agreement in (6)). If it does not first topicalize, you instead get default agreement (class IV agreement in (6)).

(6) *Embedded topicalization feeds matrix agreement in Tsez*

enir uza magalu bac'ruli r-/b-iyxo
 mother boy bread.III.ABS ate IV-/III-know

'The mother knows the boy ate the bread.'

(Polinsky & Potsdam 2001:606)

Analyses of long-distance agreement facts, like those in Tsez, rely crucially on the assumption that CP is a phase. If C did not demarcate an absolute locality boundary, it would be unclear why movement to SpecCP feeds agreement.

For ν P-phases, the primary type of evidence that has been used to argue in favour of their existence is successive-cyclicity effects. Legate (2003), for example, argues that not only transitive ν P, but also unaccusative and passive ν P induces phasal Spell-Out on the basis of their patterning with respect to parasitic gap licensing, quantifier-raising, and reconstruction. If ν P is a phase, constituents moving out of a ν P must first move to the edge of the ν P phase prior to further extraction. Hence, these constituents should be able to reconstruct to this intermediate position e.g. for purposes of binding (Fox 1998; Legate 2003). The examples in (7) illustrate this point. In (7a) reconstruction to lower positions is impossible since it would result in a Principle C violation. In (7b) reconstruction to the base-generated position results in a Principle C violation, but the bound-variable interpretation of the sentence requires reconstruction to a position below the surface one. Hence, reconstruction to an intermediate position must be available.

(7) *Reconstruction can target an intermediate position*

- a. *[Which of the papers that he_i gave Mary_j] did she_j \bar{A} ask every student_i to revise \bar{A} ?
- b. [Which of the papers that he_i gave Mary_j] did every student_i \bar{A} ask her_j to read \bar{A} carefully?
 (Fox 1998:157)

More recently, other effects have been used to argue for ν P-phasehood. These include visible morphological reflexes of intermediate movement within the verb phrase (see e.g., Bennett et al. 2012; van Urk 2020; Korsah & Murphy 2020), and a ν P-internal V2 requirement in Dinka, which can be satisfied by intermediate movement through the ν P.

However, all of these arguments only show that constituent has moved through a clause-medial landing site, and hence, under the assumption that this movement is probe-driven, that

- (9) a. Deh Mahn ehsst dehn Knoedel.
 the man eats the Knödel
 ‘The man is eating the Knödel.’
 b. Eh Mahn ehsst dehn Knoedel
 a man eats the Knödel
 ‘A man is eating the Knödel.’

It is also true regardless of what other constituents are present in the clause. For example, if there is a high adverb in the clause, there is a choice between fronting the subject or the high adverb.

- (10) a. Leyda will dehn Thoemmes ehn daya Auto
 Unfortunately wants the Thomas an expensive car
 ‘Unfortunately, Thomas wants an expensive car.’
 b. Dehn Thoemmes will leyda ehn daya Auto
 the Thomas wants unfortunately an expensive car
 ‘Thomas unfortunately wants an expensive car.’

The relative freedom of subject-fronting in Moselle Franconian is captured straightforwardly under our approach. Given standard assumptions that external arguments are merged in the specifier of v , or as the specifier of a Voice-projection above v , we do not expect the external argument to showcase any restrictions with respect to fronting since it is never inside the Spell-Out domain within the v P phase. What fronts above the v phase-head should be variable, dependent on the distribution of \bar{A} -features across the constituents above the phase (as in (10)).

Second, we turn to the patterning of adverbs in Moselle Franconian. We adopt for this discussion the assumption that different kinds of adjuncts adjoin to the clause at different heights, following a cline, as in Cinque (1999).

Our proposal predicts that adverbs that are base-generated in a position above the phase should be possible targets for fronting, but adverbs base-generated below the phase should resist fronting. We note that, according to Cinque, tense-related projections always appear above the VoiceP, whereas aspectual projections may appear both above and below VoiceP. Exact predictions with respect to the cut-off point delimited by the v P phase would require clear independent diagnostics for the location of each adverb in Moselle Franconian, a task which is beyond the scope of this study. However, the evidence clearly suggests the presence of a clause-medial cut-off point, lending further support to our analysis which hinges on an absolute locality boundary in the middle of the clause. Whereas unambiguously high adverbs, like *leyda* ‘unfortunately’ can front to the preverbal position (10a), low adverbs like *sching* ‘beautifully’ cannot (12).

- (11) *Sching hat eht Käddi deh Walza gedahnzt.
 Beautifully has the Käddi the Waltz danced
 ‘Käddi danced the Waltz beautifully.’

The observed restrictions on what adverbs can front are summarized in Table 2 below. Whereas mood and tense-related adverbs can front, aspect and manner-related adverbs do not³.

³ We note that a distinction in patterning between tense and aspect is also noted in Asante Twi by Korsah & Murphy (2020), which they suggest points to aspect being lower than the v P. Whether or not a similar thing can be said about Moselle Franconian depends on further analysis of the adverbial system in this language.

AdvP	Example	Can it be fronted?
Evaluative	<i>leyda</i> ‘unfortunately’	Yes
Epistemic	<i>wahrschehnlich</i> ‘probably’	Yes
Past/future	<i>gesta</i> ‘yesterday’	Yes
Frequentative	<i>dack</i> ‘often’	No
Volition	<i>extra</i> ‘intentionally’	No
Anterior	<i>schon</i> ‘already’	No
Terminative	<i>nit mia</i> ‘no longer’	No
Durative	<i>kurz</i> ‘briefly’	No
Completive	<i>zum dehl</i> ‘partially’	No
Manner	<i>sching</i> ‘beautifully’	No

Table 2. Cinque’s AdvP hierarchy and Moselle Franconian

Having described the patterning of adverbs, we turn now to the patterning of objects of transitive verbs. Whereas definite objects can optionally front ((12a), cf. (9a)), indefinite object cannot (12c).

- (12) a. *Dat Bähr trinkt dehn Möschel.*
the beer drinks the Möschel
‘Möschel is drinking the beer.’
- b. **Ehn Bähr trinkt dehn Möschel.*
a beer drinks the Möschel
Intended: ‘Möschel is drinking a beer.’

At first glance, the fact that definite objects can front may seem to counter the predictions of our proposal. If objects are base-generated below the vP phase, then we do not expect them to be able to front at all. We suggest that scrambling in German provides an independent escape route for some information-structurally marked constituents. Scrambling in German can target some DPs, CPs, and PPs, allowing them occupy a structurally higher position in the clause than the one in which they are base-generated (Salzmann to appear). In standard German, definite but not indefinite DPs may scramble to a position above negation. These facts hold equally well in Moselle Franconian (14-15)⁴.

- (14) *No indef. DP scrambling in MosFranc* (15) *Def. DPs scramble in MosFranc*
- a. *dat dehn Hans nit ehn Boch kofft*
that the Hans not a book buy
‘... that Hans doesn’t buy a book.’
- b. **dat dehn Hans ehn Buch nit kofft*
that the Hans a book not buy
‘... that Hans didn’t buy a book.’
- a. *dat dehn Hans nit deh Bicher kofft*
that the Hans not the books buy
‘... that Hans doesn’t buy the books.’
- b. *dat dehn Hans deh Bicher nit kofft*
that the Hans the books not buy
‘... that Hans doesn’t buy the books.’

For concreteness, we assume that v may contain a [def]-probe responsible for triggering movement to Spec vP , although this is not crucial to our point⁵. In our initial examples with fronted

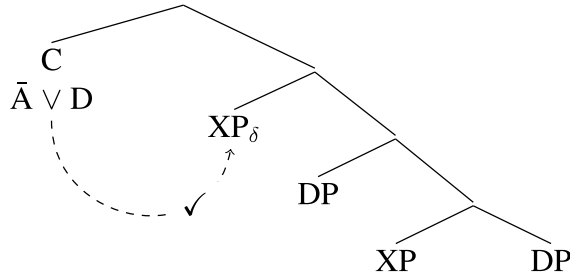
⁴ We use embedded contexts here, such as embedding under *Aysch wehs* ‘I know’, to avoid the confound of V2 word-order that is found in matrix clauses.

⁵ The analysis is compatible with any theory of scrambling (whether movement-based or not) as long as the scrambled object ends up in a position above the vP phase. We remain agnostic, within a movement-based analysis, as to the exact nature of the probe triggering scrambling, and its information-structural consequences. What is important on our account, however, is that it cannot be the same kind of trigger as that for V2-movement as that would mimic the effects of an intermediate probing mechanism.

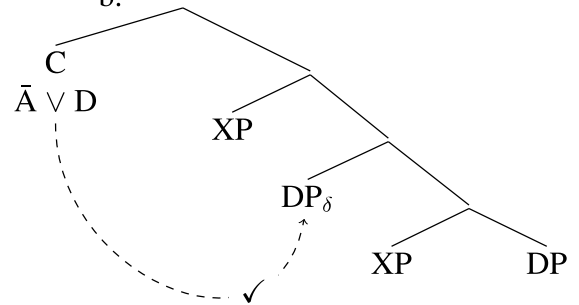
definite objects the derivation would then proceed as follows. The [def]-probe on v first scrambles the object to a specifier of v . At that point, it is within the locality domain of the higher \bar{A} -probe on C , and hence an eligible goal for fronting.

4. Against a minimality-based account of Moselle Franconian word-order. Another analytical option to account for the data so far is to locate the parameter of variation in the probe responsible for driving fronting to the preverbal position. We can then think of the Moselle Franconian patterns as demonstrating an intervention effect where the external argument, base-generated in a clause-medial position, restricts the higher probe from accessing any constituents located structurally below it. We suggest that such an account can be operationalized by positing an $[\bar{A} \vee \phi]$ -probe on C . That is to say, a probe that will agree with a constituent that is either \bar{A} -marked, or one that has ϕ -features. Such a probe should not agree with any syntactic objects that the highest DP c-commands, since the highest DP will always satisfy the ϕ -disjunct. Hence, we expect the probe to be able to target either (i) an \bar{A} -marked non-DP higher than the structurally highest DP in the search domain of the probe (as in (16a)), or (ii) the structurally highest DP, whether or not it is \bar{A} -marked (as in (16b))⁶⁷.

(16) a.

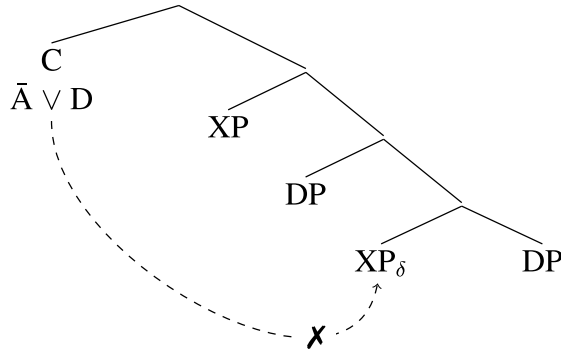


b.

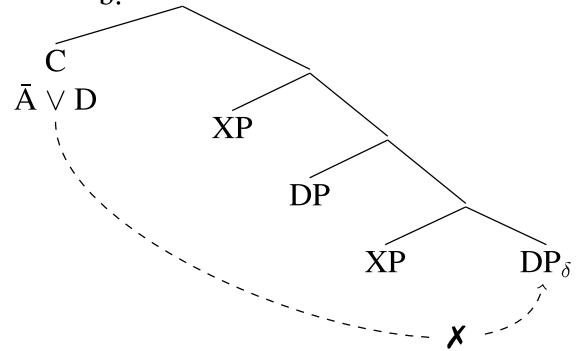


Orders that front anything below the highest DP should be impossible (as in (17)).

(17) a.



b.



Crucially, the predictions of this account differ from the predictions of the phase-based account, which does not reference the structurally highest DP. Only syntactic objects which are

⁶ We have not included any phasal heads in these trees, given that the location of the phase is not expected to change the predictions of this analysis. We use a δ -subscript to indicate an information-structurally marked constituent.

⁷ We note that predictions regarding whether or not a higher \bar{A} -marked non-DP will intervene for purposes of extracting a lower DP will depend on assumptions of how non-DPs are merged into the structure. We leave that aside here, focusing on the fact that we expect word-orders that front either the highest DP, or any non-DP above that to be possible

delimited by the absolute locality boundary of the ν P phase should be off-limit under the phase-based locality account (as in (4)).

The minimality-based accounts fares similarly in accounting for the data we have considered so far. A subject-object asymmetry is expected given that the subject will typically c-command the object. Similarly, adverbs below the highest DP are expected to resist fronting, given that the higher DP will intervene. However, in order for a definite object to front, a minimality-based account predicts that it must first independently move to a position higher than the subject, making it the closest DP to the higher probe. In contrast, a phase-based account only requires it to move to a position above the ν P-phase. It does not matter whether this is a position that is structurally higher than the subject.

Hence, under the minimality-account of Moselle Franconian word-orders we would expect object-initial orders only if the object first scrambles to a position above the subject. Although scrambling within the German *mittelfield* to a position above the subject is possible in Standard German (18), this type of scrambling is not possible in Moselle Franconian (19). This is unexpected under the minimality-based account, but can be easily analyzed under a phase-based account. As long as the landing site of the scrambled object is above the ν P-phase, it should be eligible for fronting to the initial position⁸.

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>(18) <i>Scrambling above subj. in St. German:</i>
 dass die Bücher Hans nicht kauft
 that the books Hans not buy
 ... that Hans isn't buying the book.'</p> | <p>(19) <i>No scrambling above subj. in MosFranc</i>
 *dat deh Bicher dehn Hans nit kofft
 that the books the Hans not buy
 '... that Hans isn't buying the book.'</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

5. Extensions. Having argued for a phase-based account of Moselle Franconian's restricted V2 word-order pattern, we would like to make a few brief observations on non-transitive clauses in the language. First, passives and unaccusative intransitives do not show any of the special restrictions we have observed so far (for example allowing for low-adverb fronting (20ab)).

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <p>(20) a. Extra gov ah Man angefohr
 intentionally was a man crashed.into
 'A man was intentionally crashed into.'</p> | <p>(b) ?Lohs ass deh Jung gehfahl
 slowly is the child fallen
 'The boy fell slowly.'</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|

Unergative intransitives do, however, show similar patterns to transitive verbs, for example, disallowing low-adverb fronting⁹.

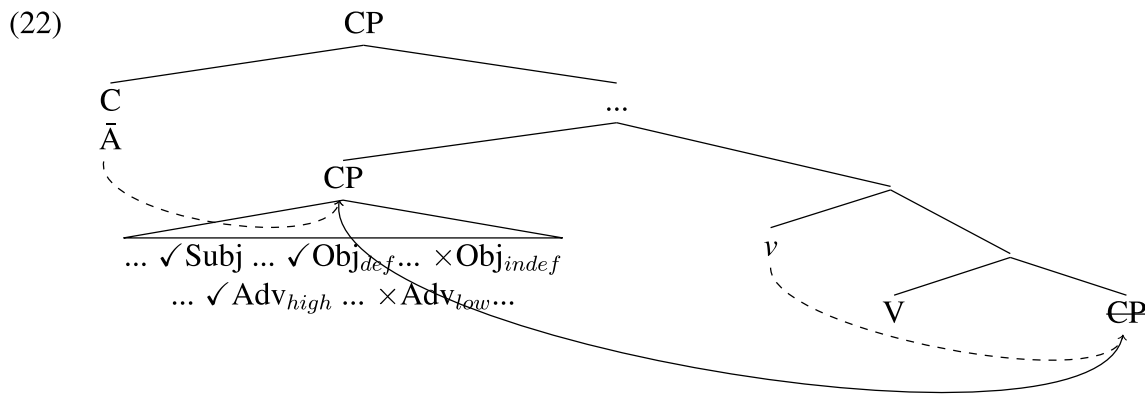
- (21) a. *Hart hott deh Mahn gehlahcht
 loudly has the man laughed
 'The man laughed loudly.'

⁸ If we wanted to maintain the minimality-based story we would need to appeal to something other than scrambling. One option would be to suggest that the final landing site of the scrambled DP object and the higher subject in Moselle Franconian is equidistant to the probe on C (cf. Chomsky 1995). This would require us to amend our definition of c-command to allow two syntactic objects that are structurally 'close enough' to be considered equally close to a probe. We favour an approach based on the phasality of ν P given that there is already significant evidence that CPs are phases, and that phasality is therefore a necessary theoretical construct, as opposed to equidistance which would require a redefinition of c-command.

⁹ Note that the auxiliary selection, *ass*, and *hott*, diagnoses that the verbs are unaccusative and unergative respectively (e.g., Haider 2010).

We take this patterning to suggest, as initially posited by Chomsky (2000, 2001), that unergative and transitive v demarcate a phase, but that unaccusative and passive v do not¹⁰.

Second, we turn to long-distance fronting patterns. All else being equal we predict that in long-distance fronting, only constituents which (i) can occupy SpecCP of the embedded clause, and (ii) can independently scramble from SpecCP to a position above the v P-phase should be eligible for fronting¹¹. This prediction is not met. Instead, the same elements which are eligible for fronting within a clause, are also eligible for fronting from an embedded clause. Subject front regardless of definiteness, definite but not indefinite objects front, and high adverbs but not low adverbs front. We suggest that this can be captured via a smuggling derivation (Collins 2005)¹². CPs first scramble to a position outside the v P phase. Once in this higher position, the matrix clause C is then able to extract any element that may appear at SpecCP of the embedded complement.



This correctly captures that the same patterns of topicalization we see within a clause should hold for long-distance topicalization.

6. Conclusion. This paper has demonstrated that accounting for restrictions on \bar{A} -movement requires both appeal to clause-medial phasehood, and cross-linguistic variation in the distribution of intermediate probes on phasal heads. Whereas Germanic languages at large allow for intermediate \bar{A} -probing, Moselle Franconian does not, allowing only for intermediate probing of *wh*-features. Our findings are compatible with a view in which the phasal status of (transitive) v is universal, locating variation in the distribution of probes driving intermediate movement instead. Although evaluating the universality of v P-phasehood is beyond the scope of this study, we do suggest that the analytical tool which we have opted to use to account for variation here may be useful in accounting for other cross-linguistic patterns in long-distance dependencies.

¹⁰ We note that, under our analysis, successive-cyclicity effects can be divorced from phasal effects. That is, the presence of a probe driving successive-cyclic movement does not come as a consequence of the presence of a phase. It is just the way by which a constituent that is trapped within a lower phase can escape that phase. As such, it would not be unexpected if successive-cyclicity effects are observed in the absence of impenetrability effects.

¹¹ This is under the assumption that CPs are opaque to scrambling in Moselle Franconian, as in Standard German (Keine 2020).

¹² Note that probes driving intermediate movement being available on C (but not v) cannot account for the pattern in (36). Although this would allow the right constituents to move to SpecCP of the embedded clause, they should then only be able to move to Spec v P of the matrix clause if they can scramble to that position. This would predict that some definite but not indefinite subjects should be able to front to the initial position. Given that indefinite subjects can long-distance front, this prediction does not seem to be borne out.

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