
WACKERNAGEL EFFECTS & PHASE BOUNDARIES IN HITTITE

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ABSTRACT. This paper investigates the Wackernagel, or second-position (2P), effects in Hittite adversative constructions. The contrastive particle *-(m)a* under investigation allows for two types of 2P configurations: we dub one ‘the strict’, and the other ‘the lax’ 2P placement. A narrow-syntactic analysis is provided and the differential 2P configurations explained by proposing several phase boundaries within the left peripheral edge of the C-system itself. After dissecting the left periphery of the clause, resting on the assumptions and results from the cartographic enterprise, we adopt (and adapt) the notion of Phase to derive not only the semantic facts concerning information-structuring oscillation of *-(m)a* meanings, but also the syntactic facts concerning the configurational variation. We thus provide a detailed fragment of the information-structuring grammar of Hittite and propose a phase-based structure of the Hittite clausal left periphery.

1 INTRODUCTION & OVERVIEW

This paper provides a narrow syntactic analysis of the Wackernagel (second-position/2P) effects associated with the adversative *-(m)a* particle in Hittite. Unlike ‘standard’ Wackernagel clitics, *-(m)a* shows a differential distribution with respect to the class of ‘hosts’ that precede it. We seek to explain this exceptional status of *-(m)a* by appealing to a particularly, and detailedly, structured clausal edge.

This paper intends to contribute in two core ways. Firstly, we explicate the most detailed analysis of the Hittite (Anatolian) information-structuring properties of the clause. Secondly, we intend to contribute to the theoretical conception regarding the cartography of the clause by submitting novel data that make the cartography of the left periphery (LP) more precise and, thus, contributes to our general understanding of the functional localisation of information structure. In this regard two specific achievements obtain: one, the fine-structure of the Hittite clause suggests a supra-clausal (high) Frame projection, aside from the motivated ‘low’ Frame projection (Haegeman, 2000; Benincà and Poletto, 2004; Sigurðsson, 2004; Giorgi, 2010; Wolfe, 2015). Secondly, the clausal edge itself contains phasal barriers. Combined with the two ideas, the relevant Hittite data receives a fully explanatory solution to the distributional problem of second-position effects under discussion.

Empirically, this paper concerns clisis and is couched within the debate on the syntactic/prosodic explanandum. In this regard, we approach the placement of the (adversative) conjunction particle which is traditionally ascribed to the dictations of the Wackernagel law (Wackernagel, 1892) which obligates the particle to appear in second position (2P). We show that the position of the particle under discussion cannot be ex-

haustively captured descriptively by invoking word-count and explanatorily by appealing to prosodic mechanism that may tamper with the linear arrangement of the syntactic structure. We demonstrate empirically that the 2P placement is subject to variation under strict syntactic conditions, the existence of which, *a priori*, puts a heavy burden of proof on the prosodic account. 45

2P effects in Hittite are multifarious and inhomogeneous, as Sideltsev (2017) has shown most recently. Out of numerous 2P elements, we focus empirically on the adversative marker $-(m)a$ in Hittite. As we explore the semantic and pragmatic factors at play in expressions with $-(m)a$ in 2P, we show that under standard assumptions the semantic-pragmatic properties of the 2P Wackernagel effect of $-(m)a$ can be explained solely if the placement of $-(m)a$ is determined in the syntax, and not at a derivationally delayed (post-syntactic, or prosodic) stage of the Minimalist modular system (Chomsky, 1995). We support this view using evidence of (what we call) ‘strict’ versus ‘lax’ 2P placement of $-(m)a$. The seemingly multifarious, or rather strict/lax, 2P nature and distribution of $-(m)a$ is derived from the precise structure of the LP and the locality/accessibility relations holding within the clausal edge and its informational-structuring properties. 50 55 60

‘Strict’ placement is informally the position after the first phonological word, whereas ‘lax’ placement is the position later than the second one. The variation is commonly attested in 2P languages (see Pancheva (2005: 135) and those she cites for discussion and overview). It is important to observe immediately that in Hittite ‘strict’ vs ‘lax’ 2P placement of $-(m)a$ sets it apart from other 2P enclitics (see Hoffner and Melchert (2008); Sideltsev and Molina (2015); Sideltsev (2017) for evidence and detailed discussion). Despite the variation, $-(m)a$ is demonstrably a 2P element for which Sideltsev (2017) gives strong evidence. 65 70

We exploit some theoretical novelties in syntactic research – pivotally, the notion of Phase (Chomsky 2001, 2008, *int. al.*) – in order to account for the patterns in distribution of clitic sequences and position ‘counts’ in the Hittite clause, building on the observations made in Sideltsev and Molina (2015). Our theoretical account is couched, primarily, in the theory of head movement (*qua* incorporation) as developed in Roberts (2010) and founded on the notion of Defectivity. In adopting this theory and spelling out the analysis, we also explicate some theoretical modifications, namely the question of ‘constitution’ of the formal features on the probe-goal chain that legitimise a goal as defectivity and license incorporation. In this regard, we make explicit that the Edge Features ([EF]) on the probe that underlie the \bar{A} -processes are operative in the determination of a goal’s Defectivity. 75 80

Our primary focus is on the ‘strict’/‘lax’ placement of the $-(m)a$ clitic. 85

The core aim, in this regard, is to explain why some elements do, and others do not, constitute legitimate ‘clitic hosting’ sites. In a rather pre-theoretical sense, enclitics are taken to cliticise, or lean, onto their hosts in the left direction, as the Hittitological literature suggests, or
 90 presupposes, in its very notation of the clitic boundary, marked with the \Leftarrow -symbol. Take, as an example, a datum in (1) below which contains a parsing line containing a traditional view of direction (\Leftarrow) of cliticisation (CL) onto the HOST.

- (1) n \Leftarrow an \Leftarrow $\check{s}ama\check{s}$ $\bar{a}ppa$ $apiyakku$ $pi-hhi$
 $\boxed{\text{HOST}} \leftarrow \boxed{\text{CL}} \leftarrow \boxed{\text{CL}}$
 CONN it you.DAT back there give-1SG.PRS

95 ‘I will give him back to you there.’
 (MH/MS (CTH 139.A) KBo 8.35 obv. ii 7’)

A traditional approach to the left-edge clitic clustering phenomena, such as the one above, would be to assume that both pronominal (an and $\check{s}ama\check{s}$)
 100 clitics are Wackernagel elements and, accordingly, need to feature in second position. Therefore, the connective $n(u)$ ‘hosts’ the direct object clitic which, in turn, acts as a ‘first position host’ for the indirect object pronominal clitic.

The directionality of apparent cliticisation in (1) may not be readily determined as it is, in fact, stipulative to assume leftward cliticisation
 105 across the board (i.e., for all 2P elements differing in lexical and functional categories, for instance). In its stead, we depart from this view and contend, in line with a recent narrow-syntactic theory of cliticisation (Roberts, 2010), that *prima facie* enclitics may be analysed as proclitics, standardly assuming that syntactic linear precedence of an element
 110 naturally feeds the phonology of proclisis; that is, the clitic sequencing is regarded as an epiphenomenon of the adjacency of objects determined and arranged by the syntactic principles alone. For instances such as (1), we will assume a different selection of clitic-hosts and, consequently, an inverse ‘direction’ of leaning, where appropriate.

115 To repeat the example in these terms, in (2), consider the idea that the connective $n(u)$ is syntactically in a position where ‘hosting’ is not applicable. Instead, the direct object an ‘leans’ onto the cluster comprising the indirect object $\check{s}ama\check{s}$ and the particle-verb segment $\bar{a}ppa$. Under our view, the Wackernagel effect is borne out in narrow syntax and is not
 120 dictated by the phonological or prosodic word-counting algorithm that places some clitics in second position. In fact, under our approach, the particle-verb remnant $\bar{a}ppa$, and everything appearing to its left, is syntactically located in the left clausal edge ($]_{\text{CE}}$).

- (2) $\begin{array}{c} \boxed{\neg\text{HOST}} \\ \text{CONN} \end{array} \neq \text{an} \neq \begin{array}{c} \boxed{\text{CL}} \\ \text{it} \end{array} \neq \begin{array}{c} \boxed{\text{CL}} \\ \text{you.DAT} \end{array} \neq \begin{array}{c} \boxed{\text{HOST}} \\ \text{back} \end{array} \left. \vphantom{\begin{array}{c} \boxed{\neg\text{HOST}} \\ \text{CONN} \end{array}} \right\}_{\text{CE}} \text{āppa} \text{ apiyakku pi-hhi}$
- there give-1SG.PRS
- ‘I will give him back to you there.’ (= 1) 125

Note, however, that this paper does not investigate the 2P effects of pronominal clitics, as the previous example may suggest, but instead the very nature of the clausal edge in Hittite. Accordingly, we pivot on the adversative-like particle $-(m)a$ in Hittite and not on the pronominal clitics. 130

An instance of pervading methodology in traditional, and theoretically less informed, morphosyntactic approaches to Indo-European, and therefore also Anatolian, linguistics would be the following: The particle x is a Wackernagel element, hence its placement is second in position (2P) and the only possible desideratum is to demonstrate how this 2P obtains. 135

Two issues arise as theoretically and methodologically unwarranted. Firstly, the simplest assumption regarding the nature of Wackernagel 2P placement entails reference to word-count only, making the approach methodologically *a priori* anti-syntactic as the core objective notion in syntax is not that of a *word* but a *constituent*. The second pertains to the very descriptive nature that the label ‘Wackernagel’ element entails: what theoretically couched morphosyntactic diagnostics determine the Wackernagel class of elements? While our approach here implicitly answers the latter, we focus resolving the methodological inconsistencies pertaining to the first issue. 140 145

In the following paragraphs, we set out some technical and terminological conventions we use throughout the paper.

A NOTE ON TYPOGRAPHICAL CONVENTIONS Here and elsewhere we follow the basic conventions for transliterating Hittite texts originally written in cuneiform, which generally feature some words or phrases written in the foreign languages Sumerian and Akkadian. Hittite words are transliterated in plain text, while Sumerian words are written in SMALL CAPS, Sumerian determinatives which were not pronounced but which defined the semantic class of the noun are written in ^{UPPER CASE SMALL CAPS}, and Akkadian words are written in CURSIVE SMALL CAPS. Hittite enclitics which are written in cuneiform as part of a single word with their host are joined to their host by \approx . Fragments of the text which are not preserved, but restored on the basis of the context or parallels elsewhere are enclosed with [], whereas fragments of the text restored after the duplicates are enclosed with [()]. 150 155 160

Additionally, we resort to using the ‘ \triangleright ’ symbol to refer descriptively to linear order in strings of data. Syntactically, we use both the notation X^0

and the Bare phrase structural (BPS) notation X^{min} . When we use X^0 we still allow, as per the GB theory, that X may have internal structure. The BPS notion of minimality, and the notation X^{min} , explicates the category as minimal and devoid of internal structure. We also employ the convention of providing clauses, or sentences, using a multi-line format. In our data, we also make gradient reference to topical/focal information by **boldening**, strongly or faintly underlying relevant constituents for their discourse orientation and information structure, where relevant or applicable. For details on the historical sources, glossing and citing conventions, see §7 at the end of the paper.

ACHIEVEMENTS AND RESULTS: A LOOK-AHEAD Aside from presenting the most thorough investigation into the nature of the (mostly) clausal LP in Hittite and its clausal cartography, this paper has several consequences that bear on the general understanding of cartographic structure of the C-system. One such result is the motivated Higher Frame projection that is located above the Force layer. The other is the view that phasal barriers exist edge-internally within the C-system.

Following Benincà and Poletto (2004), we recognise and reproduce in Hittite the evidence that support the view that the clausal edge is split into two fields (not merely heads): Focus (lower) and Topic (higher). The empirical facts from Romance lead Benincà and Poletto (2004) to assume that the (higher) Topic field hosts non-operator elements, while (lower) Focus field contains operators. Contending that “the two [Topic and Focus] subfields [...] have to be differently characterized with respect to the nature of the empty category they are related to inside the clause”, we provide a possible reason as to why the two LP subfields must be distinct. Our answer rests on the notion of Phase which, we contend, each of the fields constitutes. *Ceteris paribus*, the locality constraints on phasally-delimited constitutes, a.k.a. the Phase Impenetrability Constrains (PIC), should derive the inaccessibility of arguments to the higher Topic field. Not only does this presumably derive an explicans for Benincà and Poletto’s (2004) theory, but also explains some of the empirical facts about the S. Leonardo variety of Rhaeto-Romance v_2 distribution. Crucially, for our purposes here, a phasal view of the LP explains the empirical distribution of $2P$ placement of $-(m)a$ in Hittite. Furthermore, we buttress this view with additional Hittite data on *wh*-doubling.

THE STRUCTURE OF THE PAPER In the following section, we briefly expound on the meaning(s) underlying the $-(m)a$ particle before addressing its syntactic particulars and the core proposal in three subsequent steps in §§3–5. First, we overview (in §3) the two cliticisation patterns of the $-(m)a$ particle, for which we propose clausal localisations. Secondly, in this re-

gard (in §4), we analyse the structure of the left-periphery of the Hittite clause. Thirdly (in §5), we discuss the explanandum and bring together the theoretical tools our proposal requires. 205

2 THE MEANING(S) OF THE $-(m)a$ PARTICLE

The $-(m)a$ particle in Hittite is predominantly employed to mark adversative conjunction and discourse structure. While we argued for a detailed semantics of $-(m)a$ elsewhere, we introduce in this section a brief overview of the meanings of $-(m)a$ that are relevant for our analysis spread across §§3–5. We take them in turn with respect to the semantic effect the $-(m)a$ particle has on the context. Syntactically, we analyse $-(m)a$ as originating in the left edge of the clause. 210

In the vast majority of data, $-(m)a$ marks contrast between subconstituents of the two conjuncts. For instance in (3), the contrast that is drawn is between ‘your merchant’ and ‘his merchant’, which we underline, following Goedegebuure’s (2014) notation. 215

(3) MH/NS (CTH 261.B) KUB 13.2+ rev. iii 25–28

line 1. tuel = kan ^{LÚ}DAM.GÀR ŠĀ KUR Aššur lē
 your LOC merchant inside country Assur PROHIB
 pai-zzi
 go-3SG.PRS 220

→ 2. apel = **ma** = kan ^{LÚ}DAM.GÀR ŠĀ KUR =KA lē
 his but LOC merchant inside country your PROHIB
 tarna-tti
 let-2SG.PRS

‘(1) Your merchant shall not go into the country of Assur, (2) **while** his merchant you shall not let (enter) your country.’ 225

If we take the contrast-marking adversative conjunctions as making reference to the Question under Discussion (QUD), as per Toosarvandani (2014), then we may construe the relevant context and the QUD in (3) as ‘Whose merchant is relevant?’. The contrastive set {‘your merchant’, ‘his merchant’} thus also constitutes the answer set of the QUD. The role of $-(m)a$ in the second clause, corresponding to the second conjunct, is to implicationally negate the first answer, i.e., ‘your merchant’. Since we are concerned with the syntactic aspects of encoding such pragmatic information, we equate such readings with what Benincà and Poletto (2004) dub ‘List Interpretation’ (as discussed in section 4.1). 230

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However, expressions featuring $-(m)a$ need not always mark contrast, as (4) shows.

(4) MH/MS (CTH 188) KBo 18.54 obv. 7–13

- 240 1. ^mWandapa-LÚ-iš kuit MAHAR EN=YA par ḫišnaza ūnnešta
 2. nu TUPPU kuit MAHAR EN=YA pē ḫarda
 3. n=at arḫa peššiyat
 → 4. arḫa=ma=at kuedani memēn-i peššiya-t
 away=but=it which.loc.sg reason-LOC.sg throw-3sg.pst
 5. n=at ANA EN=YA UL karū ḫatrānu[n]

245 ‘(1) Regarding the fact that Wandapa-ziti drove hastily to my lord (3) and discarded/disregarded (2) the tablet which he held² in the presence of my lord: (4) the reason why he **discarded/disregarded** it (5) I have not previously explaine[d] (lit. written) to my lord.’¹

250 In (4), the fronted preverb seems to occupy a topic position which $-(m)a$ marks without any counter-expectant contrast being conveyed. In this regard, $-(m)a$ marks the preverb which is D-linked to the preverb in the previous clause.

255 Reminiscent of, and possibly reducible to, the contrastive effect is the narrow-focus that $-(m)a$ marks. In (5), $-(m)a$ is placed higher to the position that the narrowly contrasted element comes from. In the following example, $-(m)a$ takes scope over the entire sentence consisting of clauses 5 and 6, but the narrow semantic contrast on the negation marker is on the second clause of the sentence, clause 6, not clause 5:

(5) NH/NS (CTH 255.2.A) KUB 26.1+ rev. iii 45–52

- 260 1. šummaš=šmaš kuyēš LÚ^{MEŠ} SAG ḫūdak kā ēšten
 2. nu=šmaš ^DUTU-š=I kuit lenganunun
 3. mān=wa=kan šA ^DUTU-š=I ḫUL-lun memian našma CŪB-tar
 kuedanikki [(anda) i]šda₄maš*teni*
 4. nu=wa *r=a *n ANA ^DUTU-š=I mem[išt(en)]
 → 5. [(š)]ummaš=ma kuit CIM-an išda₄maš-ten
 you.NOM.PL=but what when hear-2.PL.PST
 265 6. n=at ANA ^DUTU-š=I UL mematteni
 7. n=at GAM NIŠ DINGIR-LÌ GAR-ru

270 ‘(1) You courtiers who were here promptly, though; (2) since I, My Majesty, have made you swear an oath (whereby I said), (3) “If you hear of any evil matter regarding My Majesty or of malevolence in someone, (4) then you must re[po(rt)] it to My Majesty;” (5) **but**

1 In our translation, we follow Hoffner (2009: 342).

when you have heard something, (6) and you do not report it to My Majesty, (7) then it shall be placed under oath.²

Sideltsev and Molina (2015) have shown that $-(m)a$ may also occur in a clause internal position; moreover, $-(m)a$ marks contrastive focus clause internally. This obviously raises the question how such cases correlate with adversative $-(m)a$ at the left edge of the clause. Consider (6):

- (6) NH/NS (CTH 570) KUB 52.72 obv. 7
1. [aši Û-TUM] ANA MUNUS.LUGAL
 this.ACC.SG.N dream to queen
 ^DZawalli-š=[m]a parā ISBAT
 Zawalli-NOM.SG.C=but out gave
 ‘Is it Zawalli that gave this dream to the queen?’³

It is frequently supposed that the main functions of $-(m)a$ is topic change: “The main function of $-a/-(m)a$ is to signal a change of topic with respect to some constituent in the preceding clause. Although there is a semblance of clause contrast, in most cases it can be seen that what is being contrasted is a particular constituent in each of the two clauses.” (Hoffner and Melchert, 2008: 396). Furthermore, “it can be seen that the translation ‘but’ rarely fits and that, while there is contrast, the primary concern is signalling a change of topic.” (Hoffner and Melchert, 2008: 397)

Partly, the formulation simply rests on misleading terminology. It is acknowledged by Hoffner and Melchert (2008) themselves that commonly a particular constituent is contrasted in each of the two clauses, thus the definition is much closer to the adversative one above than it purports to be. For further explication, see Goedegebuure (2014: 476); see also Meacham (2000: 135–6) who observed that New Hittite $-(m)a$ marked either strong or weak contrast in 48.5% of all attestations. It is also particularly important that 93.1% of the New Hittite clauses with $-(m)a$ in Meacham’s corpus display simultaneously several of semantic/discourse features – contrast, orientation change, new referents, a member of a series, subject switch (Meacham, 2000: 183–4). Only 6.9% attest just one of the functions – 8 with contrast, 6 with orientation change, 2 with new referents, 1 with a member of a series, and 11 with subject switch (ibid: 184). Thus most of the examples assessed as $-(m)a$ marking a purely topical shifting, as (7) shows, taken from Goedegebuure (2014: 501), also contain adversativity involving narrow semantic contrast between constituents:

2 Following Miller (2013: 302–3).

3 Following Mouton 2007: 187, 189.

(7) NH/NS (CTH 255) KUB 26.12 ii 2-9

1. našma=kan x[.....] našma šEŠ^D[UTU-ŠI IŠTU MUNUS.LUGA]L
ḫ[aššanza] šEŠ^{MES} DUMU^{MES MUNUS} NA[PTA]RTI anda u[škizzi?]
 - 310 2. nu ki memai
 3. EGIR-an=wa=mu tī[ya]
 - 4. apā-š=ma apā-t memai
that-NOM.SG.C=but that-ACC.SG.N tell.3.SG.PST
 5. EGIR-a[n=wa=šši (?)] UL tiyami
 6. ḫanti=ya=wa=šši UL tiyami
 - 315 7. ḫuḫḫupašš=a[=šši=za U]L (?) kišḫaḫari
- ‘(1) Or (if) [.....] or a brother of [My Majesty] (who is) offspring of the queen l[ooks (?)] at brothers (who are) sons of con[cubine]s, (2) (and) says this: (3) “Suppor[t] me”, (4) **but he** (i.e., the other person) says this instead: (5) “I will not support [him], (6) and also, I will not denounce him, (7) and also, I will [no]t (?) become hostile [to-
- 320 wards him].’⁴

Thus, the topic-shifting functions of $-(m)a$ cannot be seen as fundamentally distinct from the core adversative semantics that has been proposed in Mitrovic and Sideltsev (2017).

325 In the next section, we proceed with our main section and the analysis of the syntactic placement of $-(m)a$ in three steps. First, in §3, we distil previous philological research of the placement of the $-(m)a$ particle in descriptive terms, providing a cliticisation template and the two 2P effects (we call one ‘strict’ and the other ‘lax’). In §4, we then map the descriptive configurations onto a fine-grained left periphery of the clause, following the programmatic tenets of the cartographic programme. Finally, in §5, we use notions of Phase, Defectivity and Clause Framing in concert to spell out the syntactic mechanics we propose are at play in the Hittite clause.

335 3 CLITICISATION SITES IN HITTITE

This section addresses one of the core syntactic aspects of the distribution of the $-(m)a$ adversative marker, namely its configurational variability with regard to occupying the second position.

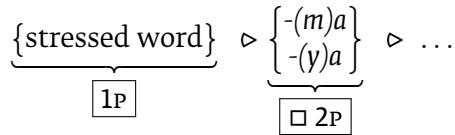
340 Sideltsev and Molina (2015) building upon Hoffner and Melchert (2008) and Kloekhorst (2014) show that the adversative clitic marker, $-(m)a$ may or may not be in strict second position. For non-strict placements we use the term lax second, as noted before. The template of the two types of configurations and count-decriptions of cliticisation sites in Hittite

4 Following Goedegebuure (2014: 501).

are provided in (8) and (9) below. (We employ the ‘▷’ symbol to refer explicitly to linear precedence of the class of constituents.)

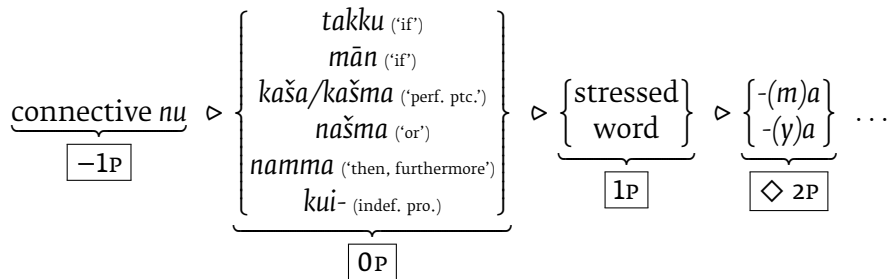
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- (8) Strict second position (□2P): after the first stressed word:



- (9) Lax second position (◇2P): after non-initial stressed word following *nu* and the closed set of words:⁵

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It is clear that the terminological difference between strict and lax 2P is eliminated if we ‘start counting’ from stressed words, as in (9).⁶

We develop an account according to which the variation in strict/lax 2P is dictated by the syntactic position of the –1/0P placement of the connective morpheme *nu* and the closed set of words from (9). In the following two subsections, we now turn to elaborating on each of the two types of 2P effects.

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- 5 It is common knowledge that (9) holds for the older stages of development of the Hittite language – Old and Middle Hittite. In later Middle Hittite and most commonly in New Hittite *-(m)a* started cliticising to the position marked as 0P in (9), see Sideltsev and Molina (2015); Kloekhorst (2014). The current paper discusses the older system. The New Hittite distribution, which clearly represents a different system, will be dealt with elsewhere. It is important that apart from 0P the Old/Middle Hittite and the New Hittite systems are identical, thus we feel justified in making use of New Hittite data as well.
- 6 The notion of ‘stressed word’ in (8) calls for this footnote. Stress, or accent, in Hittite is determined on the basis of plene spellings (i.e., CV-V-VC/CV-V-C). Note however, that there is a clear conflict between plene and what some consider to be an unstressed word. Having consulted specialists in poetic meter, we contend that one cannot base the evidence on the notion of stress and such data. For our purposes, it is sufficient to note that prototypical enclitics cannot start a new line in Hittite due to their unstressed nature. (see Sideltsev 2017 for convincing evidence). In line with this reasoning, we, for instance, observe that NPIs in Hittite are not enclitic to the negative particle *UL* since they may well start a new line.

360 3.1 Strict-second configurations: □2P

The paradigm of □2P configuration are those constructions where the particle $-(m)a$ occupies the 2P, as the pre-theoretical Wackernagel account would predict. We repeat below three pieces of data that reflect the general configurational template in (8).⁷

- 365 (10) NH/NS (CTH 255) KUB 26.12 ii 2-9
 apā-š=ma apā-t memai
 that-NOM.SG.C=but that-ACC.SG.N tell.3.SG.PST
 ‘**but** he (i.e., the other person) says this instead: ...’

- (11) NH/NS (CTH 255.2.A) KUB 26.1+ rev. iii 45-52
 [(š)]ummaš=ma kuit GIM-an išda₄maš-ten
 you.NOM.PL=but what when hear-2.PL.PST
 370 ‘**but** when you have heard something, ...’

- (12) NH/NS (CTH 255.1.A) KUB 21.42 + obv. i 33¹-34¹⁸
 INA É.GAL-Ī=ma=at UL memai
 to palace=but=it NEG tell.3.SG.PRS
 ‘**but** doesn’t tell it to the palace.’

375 The cases are uniform insofar as $-(m)a$ is a left-peripheral and contrastive marker which we analyse as triggering \bar{A} -movement of a maximal category⁹ from within the clause. In (13), for instance, the first position of the clause, and the host of the $-(m)a$ particle, is provided by a minimal verbal category.

- (13) NH/NS (CTH 106.B.2) KBo 4.10+ obv. 10’-12’
 380 5. ŠA^mUlmi-^d10-up ≠ pat NUMUN-aš daddu
 → 6. da-ddu ≠ ma ≠ at ŠA DUMU.NITA
 take-3.SG.IMPER but them of male
 7. ŠA DUMU.MUNUS ≠ ma lē danzi
 ‘(5) Only someone of the progeny of Ulmi-Teššub shall take (them).
 (6) (Someone) of the male line shall take them. (7) But (those) of
 385 the female line shall not take them.’

7 It must be observed that the preposition INA, written in Akkadian, was not pronounced in Hittite. Thus (12) attests ‘strict’ placement of $-(m)a$ after the first stressed word, even though it is written as a logogram. For more exhaustive evidence, see [Sidelstev and Molina \(2015\)](#).

8 Noted by [Hoffner and Melchert \(2008: 287\)](#).

9 We concede that the ‘hosts’ of $-(m)a$ do not always correspond to syntactically maximal categories. We relegate the diverging cases to LBE.

Assuming these configurations are derived through \bar{A} -movement into the clausal edge, then such data show that the edge-feature (EF) associated with $-(m)a$ may be checked by a minimal category.

3.2 Lax-second configurations: $\diamond 2P$

In contrast to $\square 2P$, $\diamond 2P$ configurations involve a seemingly intervening, or obviating, class of particles. By intervening particles, we mean those particles that do not constitute legitimate hosts, or do not ‘count’ as hosts to $-(m)a$ constructions. In this regard, the question we aim to answer is: Why do some elements not ‘count’? Such particles in question are the following:

- (14) i. *nu* – connective, discourse-initial
 ii. *takku* – conditional marker
 iii. *mān* – conditional marker (‘if’/‘when’)
 iv. *našma* – disjunctive (coordinate) marker
 v. *kui* – relative (*wh*-) marker

We explain the class in the list of markers that obviate the strict clitic placement by appealing to supra-clausal (and supra-phasal) layer of structure we identify as a High Frame projection (which we discuss in §4.1).

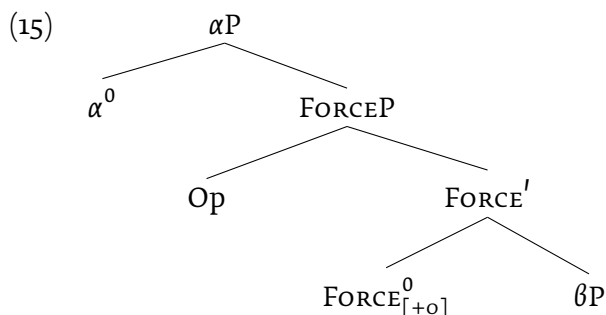
The coordinating particles, such as *nu* (14i) or *našma* (14iv), are predicted to not count as first-position hosts to $-(m)a$ expressions by virtue of their supra-clausal position. With regard to the relative marker (14v), we assume that the head-external analysis is a possible explanation along the same lines. A head-internal analysis would fail to predict the lax 2P effect, as would the conditional markers which also do not count as legitimate 2P hosts. In what follows, we sketch the analysis for conditionals.

THE CONDITIONAL *MĀN* Following Larson (1985); Bhatt and Pancheva (2002, 2006), we adopt an interrogative syntax-semantics for the conditional adjunct and assume that the conditional particle *mān* resides in an interrogative clause layer, corresponding to the FORCE⁰. Before resuming, let us minimally outline the line of reasoning for an interrogative treatment of conditionals that we follow.¹⁰

The core idea is in treating *if*-clause conditionals as interrogative structures with a covert operator in Spec(FORCEP).¹¹

10 We replace ‘interrogative CP’ with ‘FORCEP’ below as the difference seems purely terminological.

11 This does not, however, entail an identity of interpretation of interrogatives and conditionals. While interrogatives denote sets of possible worlds (i.e., answers), conditionals denote definite descriptions of possible worlds. (See Schein 2001 and Schlenker 2004 for independent arguments.)

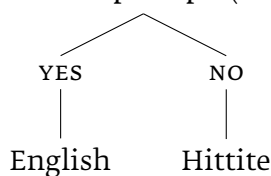


420 The adoption of a doubly edge filling Force material yielding condi-
 tional meaning in (15) appears sufficient for us to state the first prop-
 erty of clitic distribution. Since C^0 is phasal, we take the highest C-field,
 i.e. $FORCE^0$, to be endowed with the same phasal property. Thus any CP-
 embedding head, α , does not access to the interior of CP, i.e. past the
 425 edge and the FORCE head.

Note that while Haegeman (2003, 2006, 2010) in her analysis of En-
 glish, and wider contemporary Germanic, contends and shows that condi-
 tional constructions have a blocked LP by virtue of having a present op-
 erator in Spec(FORCEP), as we too have contended for Hittite. Note that
 430 we have adopted the same analysis for the Hittite *mān* and, yet, demon-
 strate that the LP is not blocked. For now, we state the comparative
 difference between English and Hittite as a matter of parametric vari-
 ation. We concede that a parametric statement, such as the one in (16),
 is merely descriptive.¹²

435 (16) The LP-blocking parameter:

Does the presence of Op in Spec(FORCEP) block LP?



Semantically, the adversative conjunction universally out-scopes the
 conditional, for reasons probably completely determined by type-match-
 ing.

440 (17) LF, order and scope of the conditional and the adv. conjunction
 a. and/but $(-m)a$ ▷ if $(mān)$

12 How, and precisely why, the LP is blocked in English but not in Hittite conditionals, is
 a matter we do not pursue here – the exact nature of the operator-blocking parameter in
 (16) is left for future discussion.

b. * if(*mān*) ▷ and/but (*-(m)a*)

While both linear orders of the conditional and the adversative are found in our Hittite corpus (18-19), we assume only one such order constitutes a legitimate LF, namely the one in (17a).¹³

The LF order may (19) or may not (19) be reflected in the PF order as determined by narrow-syntax:

- (18) PF order: when/if ▷ and/but
 MH/MS (CTH 261.II) KUB 26.17 obv. i 4 (Sidel'tsev, 2015: 127, ex. 1)
- mān** ^DUTU-š-I=**ma** kuwapi apāšila
 when majesty=my=but when himself
 laḥḥiyai-zzi
 go.on.campaign-3.SG.PRES
 ‘When His Majesty himself, though, at any time goes on a campaign, ...’

- (19) PF order: and/but ▷ if/when
 OH/OS (CTH 1.A) KBo 3.22 obv. 3 (Sidel'tsev, 2015: 128, ex. 2)
- n=ašta ^DIM-unn-i=**ma** **mān** āššu-š
 CONN-LOC Stormgod-DAT.SG-but when dear-NOM.SG.c
 ēš-ta
 be-3.SG.PST
 ‘But when he was dear to the Stormgod ...’

The empirical facts concerning the lax vs. strict 2P placement of *-(m)a* motivate, we believe, an analysis which rests on the notion of Phase. Consider a structural arrangement where the projection dominating the *-(m)a* particle-hosting LP field (such as Topic) is part of a higher-up Phase:

$$(20) \left[\text{XP} \left[\begin{array}{c} \square_{2P} \\ \left[\pi \right] \left[\text{TOPP YP } -(m)a \dots \right] \\ \diamond_{2P} \end{array} \right. \right.$$

The invisibility of a first-position occupying element, like XP in (20), receives a natural and desirable explanation for the \square_{2P} versus \diamond_{2P} configurations. In light of the hypothesised explicans (20), the next section examines, and locates the position of *-(m)a* in, the LP of the Hittite clause

13 We conjecture that the same linear alternation in the ordering of the conditional and adversative obtains in English with regard to the second-position contrastive adverb ‘however’:

- i. PF order but ▷ if: ‘But/however if you decide ...’
- ii. PF order if ▷ but: ‘If, however/*but, you decide ...’

in greater detail. Further evidence for the phasally delimited clause is provided.

470 4 THE LEFT PERIPHERY IN HITTITE

We start by observing that Hittite lexicalised two subordinators, which will serve to buttress our analysis according to which the lax 2P effect derives from the inability of the first-position element to act as ‘clitic host’ for *-(m)a*. The reader should also note that, in the discussion that ensues,
475 we use the term ‘subordinator’ in a descriptive manner and generally refer either to C_f or to a *wh*-term in $\text{Spec}(C_fP)$, C_fP being some left-peripheral information structuring clausal projection.

4.1 Mapping the two Topic & Focus subfields (Benincà and Poletto, 2004)

480 Since its inception in Rizzi (1997), the structure of the clausal edge has been refined with more theoretical precision and empirical support. The view of the LP we generally¹⁴ follow here is that of Benincà and Poletto (2004) who conceptualise the clausal edge, essentially, as comprising two subfields: one devoted to Foci (lower) and the one devoted to Topics
485 (higher).

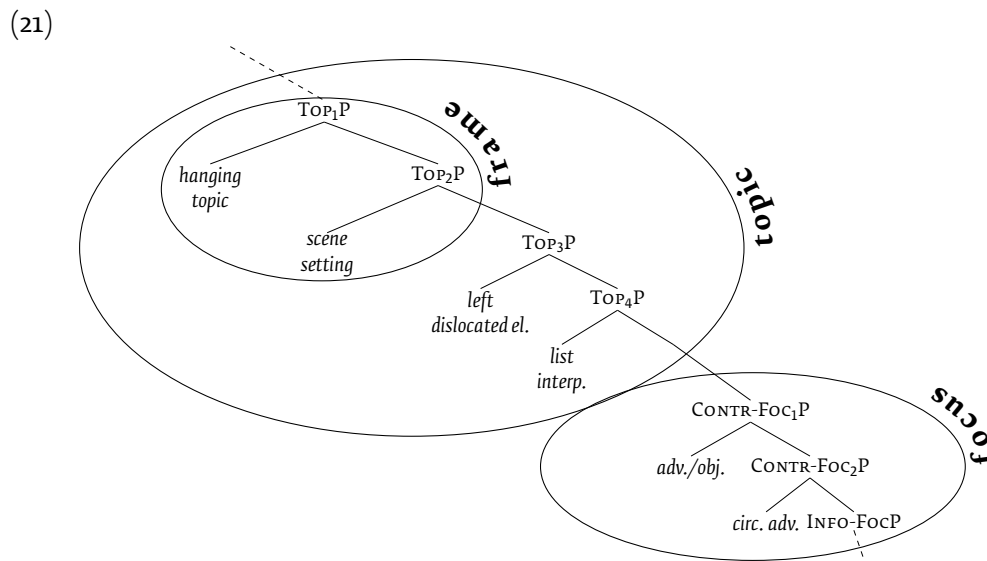
In the Focus field, Benincà and Poletto (2004) identify three different types of focalised elements which should structurally belong to three distinct projections. The lowest is the Information Focus layer for which the evidence is drawn from regional Southern Italian, as well as Old Venetian, Old Piedmontese, and other varieties. Rhaeto-Romance varieties also realise an Information Focus particle *pa* which in its 2P conveys totally new information. They draw from the same dialect the evidence than even Contrastive Focus is not a unitary projection, but rather two.
490 Based on evidence from bridge verbs, Benincà and Poletto (2004) make
495 the case that the lower Contrastive Focus hosts circumstantial quantificational adverbs and the higher one attracting contrasted objects and some adverbials.

In the Topic field, Benincà and Poletto (2004) first distinguish Hanging Topics (HT) from Left Dislocated (LD) Topics based on several exhaustive
500 tests, concluding that HT are located higher than LD. The additionally

14 We assume that aside from the Topic and Focus subfields, there are, at least, the lowest Fin projection and the highest Force projection. The latter is required on both conceptual and empirical grounds and we do not enter into motivating it. The former Fin projection, as the lowest layer, is the locus of pronominal clitics, under the head-movement view of Roberts (2010), whom we also follow (although the derivation of pronominal clisis is well beyond the scope of our present concerns in this paper). This is fully compatible with Benincà and Poletto’s (2004) view, as best we can see.

consider a ‘Scene Setting’ type of topical adverbials which constitute a third kind of Topic and need to be distinguished from both HT and LD. The fourth kind of Topics are contrastive in nature and correspond to ‘list interpretations’ which we address below and to which we have already alluded as being the meanings of the contrastive hosts of the *-(m)a* particle. 505

The structure of the clausal LP which Benincà and Poletto (2004: 71n58) propose is the one in (21), which we convert into a phrase marker and add the relevant labels to the minimal categories in each of the subfields, for exposition. 510



Benincà and Poletto’s (2004) analysis is additionally relevant since they consider evidence from v2 varieties of Romance. The Hittite *-(m)a* particle may be considered as 2P in parallel to the Romance (or any other) v2 variety. In this regard, we assume that the structural nature of the clausal LP has cross-linguistic validity, Hittite included.¹⁵ 515

Consider again the internal makeup of the Topic field with three dedicated layers and the Scene Setting adverbials (located between HT and LD) in particular. Rhaeto-Romance, as a v2 language, provides testing ground for the proposal we develop, concerning the the extent of accessibility within the LP to ‘check’ the 2P requirement. In Rhaeto-Romance, 520

15 This is in fact a default assumption: in absence of evidence that topics or foci are structured, expressed, or encoded in any other way, we assume that the information-structuring and discourse-encoding within the clausal edge works in the same way as it does in the Italian varieties that Benincà and Poletto (2004) use to motivate their account.

the Scene Setting adverbs can be optionally focalised, as Benincà and Poletto (2004: 66n43) report:

- (22) a. DUMAN va-al a Venezia
tomorrow goes-he to Venice
'He is going to Venice TOMORROW.'
- b. Duman va-al a Venezia
tomorrow goes-he to Venice
'He is going to Venice tomorrow.'

Given the two interpretations, each of the adverbs in (22) occupies a different position. In (22a), the adverb is Contrastively Focused. However, in embedded contexts, the v2 requirement needs to be met and only the focalised construction is acceptable:

- (23) a. Al m a dit c DUMAN va-al a Venezia
he me has told that tomorrow goes-he to Venice
'He told me that he is going to Venice TOMORROW.'
- b. *Al m a dit c duman va-al a Venezia
he me has told that tomorrow goes-he to Venice
'He told me that he is going to Venice tomorrow.'

Benincà and Poletto (2004) use this contrast to show that the position of the non/contrastive adverbs must indeed be different. They hypothesise that this is explained by assuming that the embedded v2 does not have the relevant Scene Setting projection. We, however, contend that the 'factor' or parameter that disallows non-focal adverbs in embedded v2 contexts in Rhaeto-Romance is the same property that underlies lax $\diamond_{2P}-(m)a$ configurations in Hittite: locality and accessibility, as dictated by the Phasal boundaries. The Scene Setting structural slot is positioned much higher than the Contrastive Focus field (assuming this is true for both Rhaeto-Romance and Hittite) and the verb in (23b) is structurally too distant to count as its host, i.e. to be able to enter into Spec-Head Agreement. This explains, on more parsimonious grounds, why Scene Setting adverbials cannot be suitable first-position hosts in Rhaeto-Romance embedded contexts.

Consider now the facts we started with and which we stated as a central problem that this paper addresses, namely the strict versus lax 2P placement of the adversative $-(m)a$ particle. Within the structure, the distribution of $-(m)a$ is generally captured if it analysed as a realisation of the Topic₄ projection hosting 'List Interpretation' (LI), in Benincà and

Poletto's (2004), or Contrastive Topics.¹⁶ Consider the parallel evidence for LI from Italian where the listed Topics are juxtaposed (24a), or conjoined normally (24b) or adversatively (24c) (Benincà and Poletto, 2004: 67n47):

- (24) CONTEXT: a farm producing a set of goods that are known to the people involved in the conversation.
- a. La frutta la regaliamo, la verdura la vendiamo
the fruit it give for free the vegetables it sell
'We give fruit for free, (while) we sell the vegetables.'
- b. La frutta la regaliamo, e la verdura la vendiamo
the fruit it give for free and the vegetables it sell
'We give fruit for free, and we sell the vegetables.'
- c. La frutta la regaliamo, invece la verdura la vendiamo
the fruit it give for free while the vegetables it sell
'We give fruit for free, while we sell the vegetables.'

The contrastive Topics thus finds their empirical parallel in Italian (and presumably cross-linguistically) as well as a dedicated position in the Topic field as the structurally lowest projection. The Hittite *-(m)a* particle can thus be analysed as a 2P LI construction within the structure in (21) as sharing with Rhaeto-Romance the 2P character and with Italian the dedicated Contrastive Topic projection.

While the strict 2P distribution can thus be captured, the lax placement remains unsolved. We propose that the lax 2P effects obtain in light of an additionally phase-delimited LP field within the clause that is located above the clause-typing Force projection. We call this field the Higher Frame field above the CP.

The Higher Frame projection takes the entire CP, headed by Force, as complement.¹⁷ Stipulating Frame as an autonomous projection above Force provides the phasal boundary. Recall the $\diamond 2P$ facts where the particle *-(m)a* irregularly occupies not the 2P but seemingly the third position. An element in Frame would not be able to access the interior of the clause nor would Frame, or any material in its edge, be eligible to act as hosts to *-(m)a* located within the clausal edge (say, Top_4). For additional cross-linguistic evidence on the existence of a dedicated Frame layer, see Haegeman (2000), Benincà and Poletto (2004), Sigurðsson (2004), Giorgi (2010), Wolfe (2015), and those they cite.

16 We are grateful to an anonymous reviewer for bring the LI facts to our attention.

17 Note that some authors, such as Hsu (2017) and those he follows, assume a Frame-setting and Force-level adverbial position filled in Spec(Force) as opposed to a fully-fledged Frame projection.

590 Additional evidence for the view that a phasal boundary intervenes between the clausal edge and Frame comes from doubling of the subordinators, generally *wh*-relative elements.

4.2 Edge-internal subordinator positions

Across languages the phenomenon of subordinator doubling has received ample attention. Poletto (2000), Ledgeway (2005), Paoli (2007), and (among others) D’Alessandro and Ledgeway (2010) have investigated the subordinator, or rather complementiser, doubling in Italian and Italian dialects and varieties. Similar doubling patterns have been shown to exist in European Portuguese by Mascarenhas (2014) and in Gungbe and Saramaccan by Aboh (2006). In this section, we present Hittite evidence of a similar type (pseudo-doubling, as discussed) that supports our view and motivates a view of edge-internal phasal boundaries.

The position of subordinators vis-à-vis familiar topics¹⁸ is illustrated by the following two examples.

605 In the first example, (25) below, ^DUTU-Š=I BELI=YA “Your Majesty, my lord” is obviously a familiar topic, as follows from the immediately preceding context given here in the translation. The subordinator precedes the familiar topic and hosts *-(m)a*.

(25) MH/MS (CTH 581) HKM 47 obv. 8–9
610 (Since you, Your Majesty, my lord, were in Kašaša, we situated ourselves in Panata.)

mahḥan=ma ^DUTU-Š=I BELI=YA ḥūittiy-at
when=but sun=my lord=my march-3SG.PST

“But when you, Your Majesty, my lord, marched? (, since the bird refused to give us an answer, we drove back to Kasasa ...”.

615 The following example in (26) is similar in that it also contains a familiar topic ‘I, My Majesty,’ but here the subordinator follows it.

(26) MH/NS (CTH 259.B) KUB 13.20 obv. i 25
(But when the army does not appear before My Majesty,)
nu ^DUTU-Š=I tūw-az **mahḥan** ḥatrā-mi
CONN SUN=my far-abl when write-1SG.PRS
620 “([Do]) **as** I, My Majesty, write from afar.”

The double position of Hittite subordinators is amply paralleled cross-linguistically, see Lyutikova and Tatevosov. (2009); Erschler (2012); Belyaev

18 We adopt the term and notion of ‘familiar’ or ‘established’ topics in the sense of Frascarelli and Hinterhölzl (2007) and those they follow.

(2014) for Ossetic, Van Gelderen (2004) for Italian, Greek, Middle English, and Poletto (2000) for Italian.

What supports our account even further is the following interesting evidence that shows lexical subordinators occupy two distinct structural positions and that they are pseudo-doubled.¹⁹

(27) NH/NS (CTH 106.I.1) Bo 86/299 obv. ii 53

mahḥan=ma=za ABU=YA **kuwapi** DINGIR-LI-iš
 when=but=REFL father=my when god-NOM.SG.C
 kiš-at
 become-3.SG.PST.MED

“But **when** my father died”²⁰

(28) NH/NS (CTH 81.A) KUB 1.1(+) obv. ii 69

GIM-an=ma ui-t š[(EŠ=Y)]A **kuwapi** INA KUR Mizrī
 when=but come-3sg.pst brother=my when in Egypt
 pai-t
 go-3sg.pst

“Now, **when** it happened, that my brother went to Egypt”²¹

In both (27) and (28) there are – *prima facie* redundantly – two subordinators in each clause: *mahḥan* and *kuwapi* with the same meaning, ‘when’. *Mahḥan* is at the clause’s left edge, whereas *kuwapi* occupies a position closer to the verb. We posit that, while *kuwapi* occupies a specifier position of a lower LP, *mahḥan* is its (pseudo) copy realised higher up the clausal structure, in some Spec(FP), where F is TOP, FOC, or ultimately FORCE. We contend that the successive *wh*-movement from the lower position is not driven purely by the requirement to check the [EF] on the $-(m)a$ -corresponding F^0 , but rather that the \bar{A} -position in Spec(FP) has some particular discourse-structuring properties.²²

The differential realisation of an underlying identical *wh*-item, under assumptions regarding vocabulary insertion (VI),²³ motivate a view ac-

19 We refer to ‘*mahḥan*-*kuwapi*’ doubling as *wh*-pseudo-doubling since the two *wh*-terms have distinct phonological shape.

20 Following Otten (1988: 18–9) and Beckman (1996: 112).

21 Following Otten (1981: 16–7) and Hout (2003b: 201).

22 This is argued for in Mitrovic and Sideltsev (2017) where the semantic analysis of $-(m)a$ is provided and mapped from the syntactic structure proposed here.

23 We adopt the architectural programme of Distributed Morphology (Halle and Marantz, 1994; Embick and Noyer, 1999, 2001; Embick, 2010) according to which the Spell-out and Vocabulary Insertion procedure, that maps featural bundles onto lexical material, is constrained by locality domains (Embick, 2010).

650 cording to which the higher *wh*-item *maḥḥan* belongs to a spell-out domain which is distinct from the one for *kuwapi*. This may be modelled by assuming that the relevant \bar{A} -feature that marks discourse contrast that is located on the LP probe is interpreted on the *wh*-goal once mapped onto an LF. This combination of the restriction on spell-out domain and the epiphenomenal \bar{A} -marking of the goal would derive the differential lexical realisation.

655 Therefore, the pseudo-doubling of the *wh*-item lends further support to our analysis according to which the ‘host’ of *-(m)a* has particular discourse-orienting effects. We therefore assume that the vocabulary insertion (VI) rule for each of the *wh*-items is restricted by a phasal boundary (π_1 and π_2), as we sketch in (29)

660 (29) VI procedures for *wh*-items:

$$\begin{array}{l} \text{a. } D^0 \Leftrightarrow \langle \textit{kuwapi} \rangle / \text{---} \left[\begin{array}{c} \text{WH} \\ \text{TIME} \end{array} \right]]_{\pi_1} \\ \text{b. } D^0 \Leftrightarrow \langle \textit{maḥḥan} \rangle / \text{---} \left[\begin{array}{c} \text{WH} \\ \text{TIME} \\ (\text{CONTR}) \end{array} \right]]_{\pi_2} \end{array}$$

665 [Embick \(2010\)](#) contends that the relevant boundary that delimits the domains for VI is that of a Phase, which finds empirical support in Hittite. We have been contending that the lax/strict placement of the *-(m)a* results from inaccessibility of some elements to ‘act as hosts’ to *-(m)a* due to their being positioned in a different phase to *-(m)a*. The differential realisation of an otherwise (functionally) identical *wh*-item supports this view under the assumption of phase-sensitivity of VI.

670 We thus established that pseudo-doubled subordinators in FORCE^0 precede familiar topics and host *-(m)a*. However, if a clause contains a contrastive or new/shifted/reactivated topic, these invariably precede subordinators and host *-(m)a*. This is particularly obvious when such a clause simultaneously contains a familiar topic:

675 (30) NH/LNS (CTH 40.IV.1.A) KBo 5.6 rev. iii 5

(While my father was down in the country of Carchemish, he sent Lupakki and Tarhunta-zalma forth into the country of Amka. So they went to attack Amka and brought deportees, cattle and sheep back before my father)

680 $\overset{\text{MES}}{\text{LÚ}}$ $\overset{\text{URU}}{\text{KUR}}$ Mizra =**ma** maḥḥan šA $\overset{\text{URU}}{\text{KUR}}$ Amka GUL-ḥḥuwar
 people Egypt=but when of Amka attack.ACC.SG.N
 ištamašš-anzi
 hear-3PL.PRS

“**But** when the people of Egypt heard of the attack on Amka, (they were afraid)”²⁴

In the example $L\dot{U}^{MES} KUR^{URU}$ Mizra ‘the people of Egypt’ is a reactivated topic – it was not present in the immediately preceding context. Nor is it present at the end of obv. ii, although this conclusion is made slightly less reliable by a lacuna. Thus it needs reactivating in the context, which conditions its first position. It also hosts $-(m)a$ which marks either sentential contrast or topic shift. As different from it, $\check{S}A KUR^{URU}$ Amka $GUL-h\check{h}uwar$ ‘the attack on Amka’ is a familiar topic as obviously follows from the previous context given here in translation. *Maḥḥan* follows the activated topic and $-(m)a$ while preceding the familiar topic.

This example very clearly shows that if there are contrastive or new/shifted topics as well as familiar topics simultaneously in the clause, it is the contrastive or new/shifted topics which have a clear priority for being in the first/initial position, preceding the subordinators and hosting $-(m)a$. In this case the subordinator can be in the second or immediately preverbal position.

(31) NH/NS (CTH 62.II.A) KBo 5.9+ obv. ii 13’

tuk ^m**Tuppi-**^D**U[-up** ^D**UT]U-š=I** *maḥḥan* *paḥš-ḥi*
you.ACC.SG Tuppi-Tessup sun-my as guard-1SG.PRS

“As I, My Majesty, protect **you**, **Tuppi-Tessup**, ...”

As different from the examples above with familiar topics, the information structure of *tuk* ‘you’ in (31) is more marked. (31) involves a kind of correlation – you protect me, I protect you. Thus the information structure status of (31) is different from the examples we discussed above and it obviously conditions the fronting of the noun phrase to a position higher than the traditional (Rizzi, 1997) Spec(TOPP), as such examples clearly set contrastive/new/shifted topics apart from the familiar topics.

4.3 The positions and facets of $-(m)a$ within the clause

There is additional evidence for the structural treatment of $-(m)a$ being placed in $FORCE^0$, and not (always) in TOP^0 , as well the differential placement of contrastive and familiar topics (pace Samuels 2005 and Yates 2014).

24 Following del Monte (2009: 88, 113). It should be observed that the example contains a Sumerographically written phrase at its left edge. Descriptively, in such cases enclitics follow the whole phrase, see Hoffner and Melchert (2008) and Kudrinski (2016).

Evidence comes from three main independent considerations: multiple topics, tetic sentences, and subordinate clauses with familiar topics. We now take these in turn.

We start by providing evidence concerning tetic sentences. Consider the following two sentences: while they attest the *-(m)a* particles, the sentences are tetic.

- (32) MH/NS (CTH 264.A) KUB 13.4 rev. iii 46
 (You must also be very careful in the matter of the fire. When a festival (takes place) *in[side]* the temple, take great care with the fire.)

maḥḥan=**ma** GE₆-anza kiš-a
 when=but night.NOM.SG.c become-3SG.PRS.MED

“As soon as night falls, (you must douse well with water the fire that is left in the hearth ...)” (Miller, 2013: 258–259)

- (33) NH/NS (CTH 40.IV.1.E1) KBo 14.11 rev. iii 24

maḥḥan=**ma** ḥamesḥanza kiš-[at]
 when=but spring.NOM.SG.c become-3SG.PST.MED

“**But** when it became spring.” (del Monte, 2009: 94, 119)

Clearly, no topic is projected in the clauses, but still weak contrast having nothing to do with topicality at the clausal level is encoded. This makes it possible to divorce topicality and contrast.

The following example, which we have already discussed above as for the function of *-(m)a*, shows the difference between contrastive and familiar topics:

- (34) NH/NS (CTH 255.2.A) KUB 26.1+ rev. iii 45-52
1. šummaš=šmaš kuyēš LU^{MES} SAC ḥūdak kā ēšten
 2. nu=šmaš^D UTU-š=I kuit langanunun
 3. mān=wa=kan šA^D UTU-š=I ḤUL-lun memian našma GÜB-tar
 kuedanikki [(anda) i]šda₄maš*teni*
 4. nu=wa*r=a*n ANA^D UTU-š=I mem[išt(en)]
 - 5. [(š)]ummaš=**ma** kuit GIM-an išda₄maš-ten
 you.NOM.PL=but what when hear-2PL.PST
 6. n=at ANA^D UTU-š=I UL mematteni
 7. n=at GAM NIŠ DINGIR-LÌ GAR-ru

“(1) You courtiers who were here promptly, though; (2) since I, My Majesty, have made you swear an oath (whereby I said), (3) “If you hear of any evil matter regarding My Majesty or of malevolence in

someone, (4) then you must re[po(rt)] it to My Majesty;” (5) **but** when you have heard something, (6) and you do not report it to My Majesty, (7) then it shall be placed under oath”²⁵

In cl. 5 of the example the topic [(š)]*ummaš* ‘you’ is established, not contrastive and yet it associates with $-(m)a$ which has sentential scope marking weak adversativity, and not narrow scope over [(š)]*ummaš* ‘you’. The example in (34) additionally, and importantly, shows that $-(m)a$ need not have scope over the DP which it follows. It also establishes that contrastivity and topicality are to be divorced. Thus, paradoxically, the very example where $-(m)a$ is hosted by a familiar topic demonstrates that it should structurally be in a higher position. At the same time, such evidence goes against the established analyses which posit that $-(m)a$ resides statically in TOP^0 . We buttress this oppositional view further.

Further evidence for (at least) two distinct positions of $-(m)a$ comes from multiple topics.

In the absolute majority of examples collected in Goedegebuure (2014), it is descriptively true that if the bearer of narrow contrast in the clause is a topic, then it is fronted (Goedegebuure, 2014: 483). In case of multiple topics, only one of the topics undergoes fronting; compare the following example where the contrasted constituents are underlined, as per Goedegebuure (2014: 478).

(35) NH/INS (CTH 105) KUB 23.1 rev. iv 14-16

1. tuel=kan ^{LÚ}DAM.GĀR ŠĀ KUR Aššur lē pai-zzi
 you=LOC merchant inside country Assur PROHIB go-3SG.PRS

→ 2. apel=**ma**=kan ^{LÚ}DAM.GĀR ŠĀ KUR=KA lē
 his=but=LOC merchant inside country=YOUR PROHIB
 tarna-tti
 let-2SG.PRS

“(1) Your merchant shall not go into the country of Assur, (2) **while** his merchant you shall not let (enter) your country.”

We are therefore led to conclude, on interpretative grounds, that only *tuel* ‘your’ and *apel* ‘his’ are in a high LP position such as Spec(FORCEP) whereas other topics are positioned lower in the clause. Note that on Benincà and Poletto’s (2004) dissection of the clausal edge (21), the LI reading which we equate with contrastive $-(m)a$ marked topics is analysed as the lowest Topic projection (i.e., TOP_4 layer). We propose that,

25 Following Miller (2013: 302–303).

780 while LI contrastive topics may well be primarily \bar{A} -moved into that position, the Hittite LI contrastive topics successively move to a higher position, such as the FORCE layer.

Our account of multiple topics is thus in line with other independently motivated analyses: among others, see Benincà and Poletto (2004), Bošković
785 (2002) for a similar construal of multiple *wh*-phrases in Ser-Bo-Croatian and Roberts (2012: 393–4) for the analysis of his data within the phase approach to 2P.

790 Subordinate clauses with $-(m)a$ provide yet another piece of evidence for teasing apart, and distinguishing between, the position of $-(m)a$ and the Topic position. As we already demonstrated, in case there is a subordinator and a familiar topic in a clause, it is the subordinator that cliticises (hosts) the particle, not the familiar topic:

(36) MH/MS (CTH 581) HKM 47 obv. 8-9

(Since you, Your Majesty, my lord, were in Kašaša, we situated ourselves in Panata.)

maḥḥan=**ma** ^DUTU-Š-I BELI-YA ḥūittiy-at
when=but sun=my lord=my march-3SG.PST

“But when you, Your Majesty, my lord, marched[?] (, since the bird refused to give us an answer, we drove back to Kasasa ...)”.

800 Contrastive and new topics, on the other hand, precede the subordinator which in its turn precedes the familiar topic. In this case it is contrastive and new topics that optionally host $-(m)a$.

(37) NH/INS (CTH 40.IV.1.A) KBo 5.6 rev. iii 5

(While my father was down in the country of Carchemish, he sent Lupakki and Tarhunta-zalma forth into the country of Amka. So they went to attack Amka and brought deportees, cattle and sheep back before my father)

LÚ^{MEŠ} KUR^{URU} Mizra=**ma** maḥḥan ŠA KUR^{URU} Amka
people Egypt=but when of Amka
GUL-ḥḥuwar ištamašš-anzi
attack.ACC.SG.N hear-3PL.PRS

“**But when** the people of Egypt heard of the attack on Amka, (they were afraid.)” (del Monte, 2009: 88, 113)

810 As we show elsewhere, the host of $-(m)a$ semantically-pragmatically marks the answer to the Question under Discussion (QUD) yielding an adversative effect on the discourse. We see from the previous example (as

well as others we cited above) that the 1P host and the 2P $-(m)a$ need not be directly homeomorphic to the interpretation. *Mutatid mutandis*, the derivational sequence allows for the *wh*-term to be in a Spec-Head relation with the $-(m)a$ category, regardless of the fact that $-(m)a$ may incorporate upward to FORCE^0 (due to independent factors). 815

This yet again warrants the position for $-(m)a$ marking contrast in FORCE^0 and the position for familiar topics in the Topic layer of the LP of the clause. 820

Nonetheless, as was shown by Sideltsev and Molina (2015), the functions of Hittite $-(m)a$ do not seem to be descriptively exhausted by contrastive uses alone, as we briefly discussed in §2. It is important to bear in mind that our account permits the possibility that anaphoric $-(m)a$ occupy Top^0 and the focus-sensitive uses of $-(m)a$ (which is how purely contrastive expressions of $-(m)a$ may be analysed, due to their exhaustive inferences) sit in Foc^0 . 825

There is a *prima facie* problem with the construal we have been developing and proposing. It is suggested that both $-(m)a$ and subordinators target FORCE^0 , which leads to potential inconsistencies. However, as we mentioned in 4.2, and implicitly in passing, our term ‘subordinator’ was defined laxly enough to cover both the head of a dedicated left peripheral clausal projection and also syntactic material in the specifiers of those dedicated projections. The two *wh*-terms we focussed on, *mahhan* and *kuwapi*, can be analysed as sitting in $\text{Spec}(\text{FP})$, where F is the relevant information-structuring clausal category. 830

Another approach would be to follow Koller (2015: 91–92) who places subordinators in FP_2 , a functional projection higher than the position of subject, but lower than FORCEP . However, for Koller, this position is also the landing site of fronted verbal arguments and phraseological verbs. We now show how this account is empirically insufficient. 835

‘Phraseological verbs’ are motion verbs, such as *pai-* ‘go’, *uwa-* ‘come’, which are used in their finite form alongside another finite verb (and agreeing with it) as a serial construction (Hout, 2003b) where phraseological verbs denote sequences of events. They occur linearly at the left edge of the clause and are commonly clause first or clause initial (Hout, 2003b: 184–186). In case they occur in subordinate clauses, they normally follow both subordinators and the $-(m)a$ marker, regardless of whether $-(m)a$ cliticises onto the subordinator or onto the contrastive topic (Hout, 2003b: 184–185), as is seen in the following examples. 840

(38) a. NH/NS (CTH 69.A) KUB 19.49+ obv. i 15

mahh[an=ma=k]an ui-t ^mUra-^DTarhunta-š
 when=but=loc come-3SG.PST Ura-Tarhunta-NOM.SG.C

NĪŠ DING[IR-LĪ šarraī-t]
oath god break-3SG.PST

“But when Ura-Tarhunta proceeded [to transgress] the oath”
(Beckman, 1996: 78)

855

- b. NH/NS (CTH 69.A) KUB 19.49+ obv. i 19

GIM-an=ma=za ui-t ŠEŠ=Y[A ^mArnuwandaš
when=but=REFL come-3SG.PST brother=my Arnuwanda
DINGIR-LĪ-iš kiš-at]
god-NOM.SG.c become-3SG.PST.MED

“But **when** it happened that [my] brother [Arnuwanda died]”
(Beckman, 1996: 111)

860

- c. NH/NS (CTH 81.A) KUB 1.1(+) obv. ii 69

GIM-an=ma ui-t Š[(EŠ=Y)]A kuwapi INA KUR Mizrī
when=but come-3SG.PST brother=my when in Egypt
pai-t
go-3SG.PST

“Now, when it happened, that my brother went to Egypt” (Otten 1981: 16–17; Hout 2003a: 201)

865

- d. NH/NS (CTH 81.A) KUB 1.1(+) rev. iii 14

[**GIM(-an)=ma**] ui-t IŠTU É.LUGAL DI-eššar
when=but come-3sg.pst from palace process.nom.sg.n
ku[(itki EGIR-pa hūitti)]ya-ttat
somehow again draw-3sg.pst.med

“Now when it happened, that the lawsuit was somehow re-
opened by the palace” (Otten 1981: 18–19; Hout 2003a: 201)

870

Thus the position of ‘phraseological verbs’ is another diagnostic to keep familiar topics which follow ‘phraseological verbs’ separate from contrastive topics which precede ‘phraseological verbs’.²⁶

Nonetheless, there is one example in our corpus which seemingly reverses the linear sequence *subordinator* ▷ *phraseological verb*, which we cite below.

875

- (39) NH/NS (CTH 106.I.1) Bo 86/299 obv. i 97

uit=ma **mahḥan** ABU=YA IŠME
come-3SG.PS=but when father=my heard

26 For the latter, see Hout (2003b: 187).

“But when it happened that my father heard the text” (Ottén 1988: 14–15; (Beckman, 1996: 111))

880

Here *ABU=YA* ‘my father’ is the familiar topic, thus *maḥḥan* cannot be analysed as a realisation of a low LP specifier, such as *Spec(FINP)*. However, in the light of Sideltsev (2017), this deviating example should be explained as attesting *maḥḥan* as a syntactic clitic.

4.4 The Topic-Focus relation

885

We now turn to reinforcing and furthering the view that foci and topics, while both may be hosted by the *-(m)a* particle, occupy structurally distinct positions. Evidence for familiar topics preceding identificational focus marked by *-(m)a* is provided by cl. 2 of the following example:

(40) NH/NS (CTH 566) KUB 22.70 rev. 51–53

890

1. n=at pānzi ANA DINGIR-LÌ IŠTU NA₄ pi-anzi ...
conn=it go.3PL.PRS to deity with gem give-3PL.PRS
2. n=at ANA DINGIR-LÌ IŠTU GUŠKIN=ma pi-anzi
conn=it to deity with gold=but give-3PL.PRS

“(1) Shall they proceed to give it to the deity with gems [...] (2) (or) shall they give it to the deity with gold?”²⁷

Here the familiar topic *ANA DINGIR-LÌ* ‘to the deity’ precedes focus *IŠTU GUŠKIN=ma* ‘with gold’ and establishes the *TOPP* \triangleright *FocP* hierarchy. The familiar topic *ANA DINGIR-LÌ* ‘to the deity’ occupies *Spec(TOPP)*, the focus-associating *IŠTU GUŠKIN=ma* ‘with gold’ is in *Spec(FocP)*, while *-(m)a* is placed in *Foc⁰*.

895

The following case is similar, insofar as it also involves interrogative focus; note, however, that the *wh*-word is marked by another focus particle, *-pat*.

900

(41) NH/NS (CTH 583) KUB 15.5+ obv. i 12

- aši=wa=kan AMA.AMA=KA kuw[a]t=pat
this.NOM.SG.C=QUOT=LOC grandmother=your why=FOC
ḥUL-lu tiyan ḥar-zi
evil.ACC.SG.N step.PRTC.NOM.SG.N AUX-3SG.PRS

905

“Why has that grandmother of yours done evil?” (de Roos 2007: 72, 80; Mouton 2007: 245, 250).²⁸

27 Following Ünal (1978).

28 See Mouton (2007: 250) for adverbial treatment of *ḥUL-lu*.

The account we have been developing fits perfectly well into the classic split CP à la Rizzi (1997). However, there is evidence that, *ceteris paribus*, is hard to reconcile with this view. It appears that, in the following case, the material in front of the subordinator is not topicalised or focused:

- (42) NH/NS (CTH 584) KUB 15.1+ obv. ii 13-14
1. kũ-š=mu kui-ēš MAMETE^{MEŠ}
this-NOM.PL.C=me which-NOM.PL.C oaths
 2. ariyašešn-az kuitta GIM-an
oracle-ABL each.NOM.SG.N as
SIXSÁ-at
establish-P3SG.PST.MED
 3. nu kinun kuit arḥa aniya-uwanzi UL tarahḥ-ari
conn now as away do-INF NEG can-3SG.PRS.MED
- “(1) Since I am now unable to fulfil these oaths (2) As they were each designated by an oracle.” (de Roos, 2007: 91, 99-100)²⁹

The initial *ariyašešn-az* in cl. 2 of (42) cannot be interpreted either as focus-associating or as standing in for a familiar topic. This follows from the context where there is no set of alternatives or any previous—even implicit—mention of oracles. The analysis is made certain by considering analogous contexts. The typical context which describes establishing a fact by oracle is the one in (43).

- (43) NH/NS (CTH 584) KUB 15.1+ obv. i 13-14
1. ariya-wen
inquire.by.oracle-1PL.PST
 2. nu ^DHepat ^{URU}Uda SIXSÁ-at
conn Hepat Uda establish-3SG.PST.MED
- “(1) We made an oracular inquiry (2) and Hepat of Uda was designated.” (de Roos, 2007: 89, 98)

The construction expresses one action described by two verbs, in (43): *ariyawen* “we made an oracular inquiry” and *SIXSÁ-at* “it was determined/established/designated”. See many more analogous contexts in KUB 56.24 (de Roos, 2007: 261-265) and HW²A (Friedrich and Kammenhuber, 1984) for further attestations and discussion.

Contexts like the one in (43) establish, with a very high degree of certainty, if not beyond doubt, that normally *ariye-* “make an oracular in-

²⁹ Literally, “(1) which these oaths are, (2) as they each were established by an oracle (3) as it cannot be now done”

quiry” and $SIXSA$ “establish some information” are informational foci referring to the same event as they describe two aspects of the same action, or, to be more precise, $SIXSA$ “establish some information” describes the last stage of the action of *ariye-* “make an oracular inquiry” (Friedrich and Kammenhuber, 1984: 296). The same information status is preserved in the sentences where the verb denoting how the information was established, *ariye-* “make an oracular inquiry”, is nominalised as *ariyašešar* ‘oracle’, as in (42) above. No topicalisation is ever present in the context as the two actions, denoted both by the nominalised *ariyašešar* “oracle” and by the finite verb $SIXSA$ -at “it was determined/established/designated”, describe the same event, no separate previously evoked action is involved, which may be referred back to using the noun “by an oracle inquiry”. Thus “by an oracle inquiry” is simply part of broad predicate informational focus “establish by an oracle inquiry”. Nonetheless, it is placed to the left of the subordinator *GIM-an* ‘how’. In the subsections above, all the structural positions above $FINP$, which *GIM-an* ‘how’ obviously occupies in (42) are related to information structuring.

The data we have presented thus corresponds to a low-focus structure, which we analyse as involving a sequence of left peripheral projections in the v -field.³⁰ Such sequences are rather well-established and construed in a various of ways: as specifiers of an unspecified projection which dominates $FocP$ in Malayalam (Jayaseelan, 2008: 56); as occupying the $Spec(TP)$ position and dominating $FocP$ in Georgian (Skopeteas and Fanselow, 2010: 1380); as adjuncts to vP in Aghem (Hyman and Polinsky, 2009) and Czech (Sturgeon, 2006). Most of them (with the notable exception of Hyman and Polinsky 2009 and Sturgeon 2006) posit a low $FocP$ dominated by TP .

There is vast empirical evidence supporting the view that a focus position exists lower than the clause level. Among many others, see, for instance, Belletti (2003); Brody and Szabolcsi (2003); Butler (2004); Jayaseelan (2008); Wolfe (2015); Alboiu et al. (2015); Kahnemuyipour and Megerdooimian (2017). In line with aforementioned cross-linguistic motivation, we suggest that Hittite possessed a low focus projection dominated by TP . The material unmarked as for the information structure is thus analysed as occupying an A -position in $Spec(TP)$ or TP -adjoined (which can be regarded as identical). The \bar{A} -positions relevant for information structuring should be available on phasal edges only, and thus we take the relevant low focus position to be related to the vP phase.

This is not a surprising conclusion since the structural parallels between the two phasal categories, C^0 and v^0 , is a consequence of the Phase theory generally, as Gallego (2009) argues. Presumably more interest-

30 We are unable, at this phase of our enquiry, to dispel the view that the v -level Focus is also amenable to a small clause analysis. We leave this for future research.

ing are the empirical motivation for a vP-level LP which has been cross-linguistically demonstrated: e.g., by Poletto (2006) for Old Italian, or
 980 Aldridge (2009); Mitrovic (2015) for Old Japanese, among many others.

5 DEFECTIVITY AND CLAUSE-INTERNAL PHASES

While the previous section provided the analysis, we explicate on the formal foundations our account rests on. As noted in the introduction, we contend a narrow-syntactic explanandum for cliticisation, following
 985 Roberts (2010), where Wackernagel cliticisation derives as a PF effect of narrow syntactic movement. We proposed that the pattern of placement of the $-(m)a$ particle obtains once $-(m)a$ is understood as incarnating one of several LP clausal formatives.

In line with the anti-lexicalist perspective on morphosyntactic deriva-
 990 tion, we standardly take syntactic terminals to represent feature bundles not directly, or narrow-syntactically, associating with any lexical material. The ‘lexical’ status of terminals, complex or simplex, is determined post-syntactically by Vocabulary Insertion (VI) rules, which are determined by locality principles that associate feature sets to phonological content (as per the basic tenets of Distributed Morphology). We
 995 propose that the relevant locality domains restricting the VI rules are phasally determined (cf. Embick 2010) in the clausal spine.

The phonological realisation of the particle $-(m)a$ thus derives by associating with it the relevant clause feature(s). In our take on the fine structure of the LP in Hittite, we predict that $-(m)a$ associate with the Force, Topic, or Focus heads. FIN^0 , as the lowest clause-internal head, does not associate with $-(m)a$ for two reasons. Firstly, FIN^0 presumably has closer derivational, and interpretational, affinity with T^0 (*qua* ϕ -feature inheritance; see Chomsky 2007, 2008, Richards 2007b, and Goto (2011), *int. al.*)
 1000 than the rest of the clause structure. Secondly, and in relation to our first argument, FIN^0 is the locus of pronominal clitics in Hittite which are taken to be defective $\text{D}^{\text{min/max}}$ elements that incorporate into FIN^0 , in line with Roberts (2010); Roberts (2012).

We contend that the notion of phase is central in explaining the distribution of the $-(m)a$ particle in various contexts. We believe it is precisely
 1010 the notion of the phase that can shed insight into how Defectivity and \bar{A} processes interact. In a nutshell, the head that triggers head movement, associating with the $-(m)a$ particle, has to be phasal in nature under a strict definition since movement targets phases (and phases alone). We have demonstrated that movement to $-(m)a$ ‘hosting’ positions is intrinsically tied to the information structuring interpretation which we,
 1015 rather naturally, related to the [EF] in the left periphery of the clause. In

fact, we have shown that ‘low focus’ can also be detected in Hittite which we, again rather naturally and in context of other literature, related to the vP phase. 1020

Let us briefly review, and adopt, the principles of Derivation by Phase (DbP), as galvanised by Chomsky (2001). With the stipulative concept of the ‘barrier’ as its conceptual predecessor, the ‘phase’ represents a natural and consistent notion of delimiting a derivation to continuous, yet independent, units. 1025

In our discussion, we employ a featural notation for phase heads using the binary feature $[\pm\pi]$, which is parallel with Richards’s (2007b) notation $[\pm\text{PHASE}]$.

Recognising three syntactic phasal levels, incarnated by phasal heads (D^0 , v^0 , and C^0 , morphologically, we take each of the ‘word-internal’ categorising formatives to be phasal also. Hence roots are merged with phasal heads at the onset of the derivation. At the end of the derivation, we take there to exist, in line with natural principles and conceptual, as well as empirical, necessity, an extra-clausal layer formed on top of phasal clause, headed by C^0 which ensures the final transfer, i.e. the spell-out of the entire clausal material.³¹ In regards to *what* the C^0 represents, we have also been assuming a fine-grained clausal spine which encodes information-structuring properties. 1030
1035

Following Richards (2007a), we observe the alternation in the distribution of phase heads, which we assume carry a phasal signature via an interpretable $[\pi]$ -feature. Taking a stock of core minimal categories that make up the extended projections of nominal and verbal domains, we list this alternation in (44).³² 1040

	CATEGORY	$[\pm\pi]$
NOMINAL DOMAIN	N^0	–
	D^0	+
(44) VERBAL DOMAIN	V^0	–
	v^0	+
	T^0	–
	C^0	+

As CPs may serve as complements of hyperclausal heads, such as co- 1045

³¹ For an explication of the ‘final transfer’ problem, see Watumull (2014), among other.

³² While both lexical categories, N^0 and V^0 , are considered not to be phasal in their status, we contend that, in line with the word-internal syntax as per the architectural programme of Distributed Morphology (Halle and Marantz, 1994; Embick and Noyer, 1999, 2001; Embick, 2010), the categorising formatives, n^0 and v^0 that combine with category-less roots, constitute the First-Phase (cf. Ramchand 2008).

ordinate heads etc., it follows from (44) that such a head will be non-phasal. We contend that Hittite articulates such a head and realises it as the connective *nu*, along with other OP words, which we ascribe pre-theoretically as occupying the zero position (9).

1050 The phasal property of the C head requires explication once a non-atomic notion of the C head is adopted. Here we take a slight excursus to countenance the seemingly inconsistent properties of our account which we have been developing thus far.

1055 The phasal architecture we have just assumed, in concert with the fine-grained cartography of the clausal field seem to be contradictory research programmes. While a cartographic project postulates a rich articulation of functional (sub-) components of information structuring layers, a phase-based account of Chomsky (2001), *int. al.*, relies on a sparsely postulated set of projections, primarily driven by economy (third factor) 1060 principles. While the two proposals are widely used in concert, under the probable assumptions that the two will eventually have reached the inevitable reconciliation, we contend that the relation between, and compatibility of, the two programmes requires a more explicit formulation. Our concerns and motivation for this explication is best stated by Narita 1065 (2011: 172): “Many researchers are well aware of the fundamental tension between the inflation of functional categories (on demand of descriptive pressures) and the minimalist goal of biological adequacy.” Work that deals with these issues most exhaustively is, to date, that of Totsuka (2015).

1070 The extent of our concerns is limited by the answers to the two questions:

- i. Does a cartographic view of the clause impact the theoretical status of the C Phase? If C^0 is phasal, and if C^0 is fine-grained into I[nformation] S[tructure] functional levels, which one is phasal? The 1075 more specific question that Totsuka (2015) addresses is: which head of the left-peripheral functional categories purported under the Cartographic approach is a phase head in the sense of Minimalism?
- ii. Given the C-to-T feature inheritance Chomsky (2007, 2008), what is the status of this feature inheritance under cartographic assumptions? Or, as Kidwai (2010: 234) asks, which heads are the most 1080 amenable to such transfer/inheritance?

While the first question is more immediately relevant to our purposes, the answer to the second question feeds the first.³³ In regard to the first

33 For a detailed discussion, see Kidwai (2010). Note, however, that this discussion attempts to reconcile the Cartography of the T-field, and not the C-field of Rizzi (1997). We find the two questions conceptually on a par.

question, we take the finely structured clause to constitute a single phase head, in line with Roberts (2012: 397). Totsuka (2015), on the other hand, takes the heads FORCE and TOP to be phasal, while, as he contends, the heads FOC and FIN are not. (Under one interpretation, this is consistent with Roberts (2010); we show in below how the empirical facts in Hittite may be captured by locating [π]-bearers within the clausal spine.)

We now turn to the notion of Defectivity, which Roberts (2010) proposes and develops in order to predict movement of the minimal category (incorporation).

(45) DEFECTIVITY (Roberts, 2010)

A goal G is defective iff G 's formal features are a proper subset of those of G 's probe P .

Thus, in more formal terms, a set of of formal features (F) on a minimal category that enters an Agree relation as a Probe (P) will incorporate the Goal (G) iff (46) obtains.

(46) $F_G \subset F_P$

Following Chomsky (2008) in assuming that only phase heads trigger movement, Roberts (2010) concludes that phase heads must, thereby, constitute the only cliticisation sites. For the clause, such phase heads are only C and v and may adduce from this idea of landing sites, or incorporation loci, a dichotomous typology of pronominal cliticisation: D-level arguments obligatorily cliticise onto C^0 , while ϕ -level pronouns target v^0 .

As an example of the latter, v^0 -targeting cliticisation, take an example from French, which Roberts (2010: 104) adapts from Sportiche (1999). The sentence in (47), featuring the subject and the object clitics, derives as a complex T^0 , as shown in (48). The vocabulary-associating lexical material is marked in the T-system only, as this is where the Chain Reduction (ChR) algorithm is suggested to converge.

(47) Je t'aime.

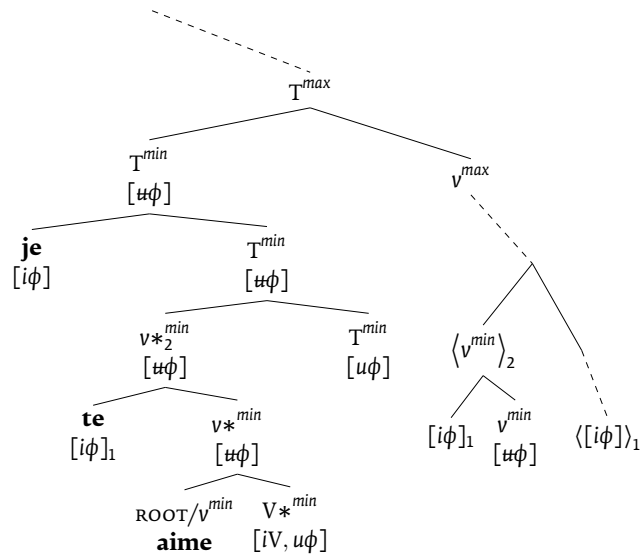
I you.CL-love

'I love you.'

(French)

(48)

1115



The general sketch of deriving head movement for (47), adapted from Roberts (2010: 104, ex. 104), is given in (48), according to which the formal feature of the object DP (= G), i.e. $\{[i\phi]\}$, constitutes a subset of formal features $\{[u\phi], [iV]\}$ on the v (= P), which obtains raising of the object pronoun to v^{min} , in line with (45) and (46).

Conversely, an example of C-level cliticisation is derived using the same mechanism, *modulo* the fact that clitic goals are D (and not ϕ) heads and the corresponding probes C heads.³⁴ As an illustration, take (49), a transitive sentence with object clitic, where the cliticisation is taken to take place in the C-domain, as derived in (50).³⁵

(49) Vidio ga je.
saw him.CL.ACC AUX.3.SG

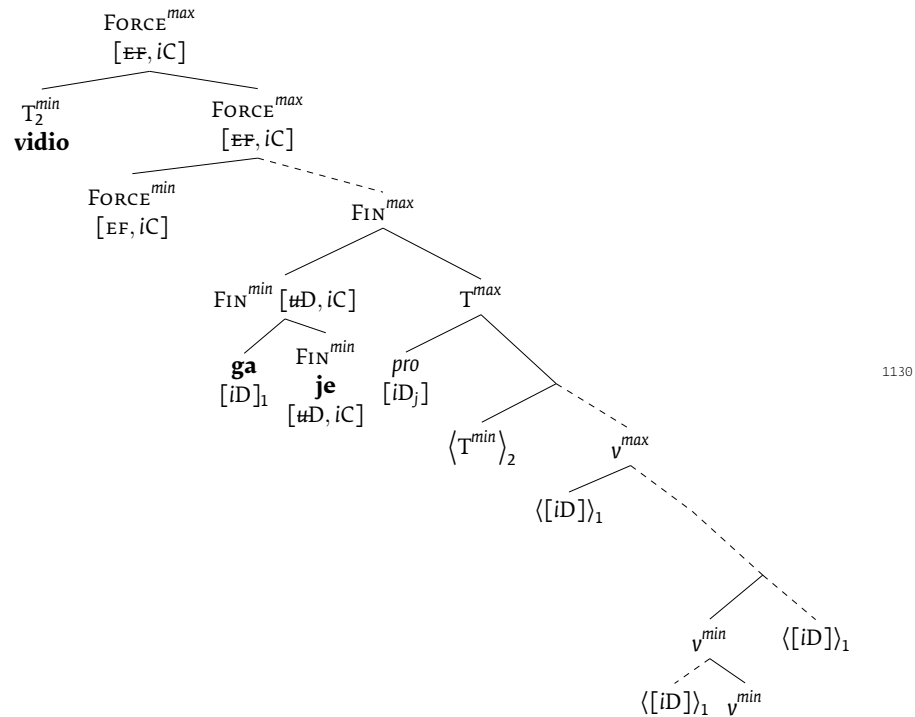
‘He saw him.’

(Ser-Bo-Croatian)

(50)

34 For pronominal clitics, this is suggested to be the lowest head in the C-system, i.e. FIN^0 .

35 While it is irrelevant for our purposes, we leave open the question, whether the direct object $D^{min/max}$ (viz. index 1) transits from the lower v -level to the matrix C-level phase via $\text{Spec}(v^{max})$ or by excorporating from v^{min} . See Roberts (1991); Roberts (2010); Roberts (2012) for details. The [3.sg] auxiliary verb is assumed to reside in FIN^0 (see Bošković 1997: 153 and references cited there for details and discussion).



On the landing site, incorporation can thus be seen as an epiphenomenon of Nunes's (2004) Chain Reduction algorithm (ChR) which encounters the complete subset of features of the goal on the probe. In Roberts's (2010) system, the clitics target phases only, i.e. all clitic probes are predicted to be phasal in nature.

We take this view further and entertain the idea that \bar{A} -features, *qua* Edge Features, [EF], count as necessarily formal for purposes of ChR, contra to Roberts (2010: 67). While this proposal is not to be understood as applying universally across languages, we find it a necessary view for Hittite. One clear reason and strong argument for relating incorporation with the valuation of [EF] within the clause is the empirical fact that the 2P placement of *-(m)a* is, as a matter of principle, related for interpretational properties of the 1P 'host', as briefly demonstrated in §2 (but see Mitrovic and Sidel'tsev 2017 for details). As these facts cannot be readily derived by Roberts's (2010) Defectivity system, we are led to assume, by conceptual necessity, that [EF]s and their \bar{A} -associating interpretative effects, should be subsumed under the principle of Defectivity that successfully readily derives a wide-ranging set of cross-linguistic phenomena. Support arguments for treating discourse features on a par with formal features in minimalism, see Aboh (2010) and those he cites. (We return to reproducing and furthering this argument below.)

The modification is seemingly minor with regard to (46) which can be formally restated as in (51), which we programatically understand here

as a matter of cross-linguistic parametrisation.³⁶

1155 (51) $F_G \subset F_P \mid [EF] \in F_P$

Our working redefinition of the characteristic nature of Formal features, which allows Defectivity to obtain, *prima facie* empirically over-generates. We believe this is not the case since we are conjecturing this redefinition for Hittite, although our analysis is supported by independent
1160 empirical and theoretical considerations put forth in Mitrovic (2017).

In this regard, the so-called verb-topicalisation in Slavonic (termed by Fanselow and Cavar 2002), derived in (50) as movement of the minimal verb to Spec(FORCEP), may be recast as movement of equally minimal category but one which target the FORCE head. We suggest this is obviated
1165 since the feature set on the verbal goal does not constitute the proper subset of the FORCE⁰ probe, since the [μ D] is checked derivationally at an earlier stage with FIN⁰. For Hittite, we suggest that [EF] count in the constitution of the formal features and determination of the proper subset relation that would derive defective goals within the field of IS
1170 projections in the clausal edge.

Another conceptual motivation we suggest to characterising [EF]s as operative in determining a Defectivity relation holding between a probe and a goal rests on parsimony and is the following. Two generally agreed upon theoretical assumptions find a natural unification. Firstly, one, if
1175 not the only, role of the [EF] is to extend the derivation and thus provide a non-empty edge (escape hatch). Secondly, phase heads should be the only landing sites of displaced elements. Since narrow-syntactic head-movement may be driven by discourse-sensitive [EF]s (Mitrovic, 2017), as well a proper subset relation between a phase head and a (defective) goal,
1180 then it is both natural and theoretically more parsimonious, at least on methodological (if not conceptual) grounds, to regard [EF]s as operative in constituting a Defective relation.

In terms of the empirical range of information structuring and discourse-orienting properties of the *-(m)a* particle in Hittite, we are thus able to
1185 associate various roles and positions of *-(m)a* as instances of upward incorporation, driven by Defectivity.

Let us now turn to integrating the LP patters from Hittite along with these theoretical considerations.

36 For instance, while (51) holds for Hittite, it need not hold for, say, French. Another, and presumably a more interesting, dimension of parametrisation would be to speculate whether, and which, clause-internal heads trigger [EF]-driven incorporation. If D-level pronominal clitics are defective with respect to a C head, Minimality (and/or Minimal Link Condition) will preclude the incorporation of D into a head in the C-system which is higher than the lowest C-head, i.e. FIN⁰. We leave this to be discussed and explored elsewhere.

As we have been demonstrating, the grammatical architecture of the Hittite information structuring is indeed very similar to that posited for Romance. The general differences in the patterns on arranging various topics, focus and contrastive elements, independent of supraclausal markers, is accounted for by positing parametric variation within the CP domain. Our analysis, in this light, captures not only the position of contrastive topics, but also the position of the $-(m)a$ particle.

Evidence from 4.3 demonstrated clearly that the $-(m)a$ particle may associate with several LP functional positions in various constructions. The particle $-(m)a$ attests a second position requirement of which in technical terms amounts to generalised [EF] on LP layer (as high as FORCE^0), making it necessary for its specifier to be filled with some syntactic object in order for that feature to be checked. It is suggested second position effects are tied in to the phase edge (Roberts, 2010; Roberts, 2012). Thus the distribution of $-(m)a$ is consistent with locating the relevant movement-triggering feature at the phase edge, i.e. [EF] within the CP phase, and not higher than the phase edge, within the domain dominating CP. The material which is not regarded by $-(m)a$ as satisfying its second position requirement is generally regarded in second position literature to occupy a position higher than FORCEP , see along similar lines for v_2 in standard literature, e.g., recently Wolfe (2016: 297). Contrastive topics in Hittite qualify as counting towards the first position hosts for $-(m)a$ and are thus unlikely to be positioned higher than in $\text{Spec}(\text{FORCEP})$.

Thus it is the behaviour of $-(m)a$ which is crucial for our construal of the Hittite left periphery. It is a crucial empirical fact that $-(m)a$ does not cliticise onto topics located above the relevant clause barrier:

- (52) OH/OS (CTH 627.A) KBo 20.26+ rev. iii 18'
 $[\text{LÚ.MEŠ}]$ hāpi-eš karū=**ma**=aš tarku-anzi
 hapi-NOM.PL.C already=but=they dance-3PL.PRS

“(As for) hapi people, they are already dancing.”

In terms of the parametric variation one may expect, the Hittite internal structure of the Topic field is different from Italo-Romance. This unambiguously follows from the distribution of contrastive topics vis-à-vis other kinds of topics. Whereas in Italian contrastive topics are located lower in the structure than a thematised argument or an adverbial (i.e., left dislocated topics, as per Benincà and Poletto 2004: ex. 56), in Hittite the order is different: here, contrastive topics precede all other kinds of topics and are consequently located higher than them in the structure.

One way of capturing both the variationist approach while keeping the cartographic attitude in full generality is to appeal to Defectivity as assume that contrastive topics result from incorporation of a topic head,

1230 such as TOP_4^0 in (21), into a higher contrast-encoding head, located above the topic/frame layer of the clausal structure, which otherwise encodes and hosts List Interpretation (LI) topics, Hanging Topics (HT), Scene Setting (SS) topics, or Left Dislocated (LD) elements.

$$(53) \left[\text{CONTRP} \left[\text{LI} \left[\text{TOP}_{4,i}^{\text{min}} \text{CONTR}^{\text{min}} \right] \overbrace{\left[\text{HT} \text{TOP}_1\text{P} \text{SS} \text{TOP}_2\text{P} \text{LD} \right]}^{\text{FRAME}} \text{TOP}_3\text{P} \text{t}_i \dots \right] \right]$$

TOPIC FIELD

1235 There is an additional benefit of the analysis we advocate here. Our analysis this solves an outstanding theoretical issue with encoding contrastiveness, and its relation to topics and foci, in the cartographic approach raised by Neeleman et al. (2009). These authors present typological evidence which purportedly clash with a cartographic outlook on sentence structure, reaching a conclusion that “there are cross-cutting generali[s]ations over topics, over foci, and over contrastive elements” (Neeleman et al., 2009: 15) but rather a four-way typology (54) which cannot be accounted for using the cartographic apparatus since it requires resorting to non-privative features.

	TOPIC	FOCUS
1245 (54) NON-CONTRASTIVE	aboutness topic [TOPIC]	new-information focus [FOCUS]
CONTRASTIVE	contrastive topic [TOPIC, CONTRAST]	contrastive focus [FOCUS, CONTRAST]

The Hittite $-(m)a$ expressions can be seen as instantiating the contrastive dimension of the table (Neeleman et al., 2009: 15n1) and its various positions as resulting from incorporation of the LP heads, including Contrast.

1250 6 CONCLUSION

We argued, with several arguments, against the analysis according to which the $-(m)a$ marker is placed in and expressive of the Topic discourse function. On our approach, the semantics of $-(m)a$ marking is borne out in its generality: since $-(m)a$ does not express Topicality per se, and sometimes no Topicality at all, the analysis which posits the static structural position of $-(m)a$ in Top suffers from severe descriptive and explanatory inadequacy. The analysis we put forth utilises narrow-syntactic head-movement to allow $-(m)a$ to incorporate into higher minimal categories of the clause, yielding the differential discourse effects while retaining

the core adversative semantics. We have also provided empirical evidence that $-(m)a$ may as well incarnate a sub-clausal left-peripheral head, namely the vP -level Focus. There is nothing inherent to our analysis that bars the view of the v -level Foc^0 incorporating into the clause-level equivalent. This may, in fact, could yield a desirable effect of our analysis; however, we leave this theoretical option unexplored in this paper.

While our empirical focus has been on the $-(m)a$ particle we have not related our account on the placement of $-(m)a$ with the placement of other $2P$ elements with ‘strict’ placement (such as enclitic personal pronouns, for instance), which we term (traditional) Wackernagel clitics.

How do we explain the fact that in cases when $-(m)a$ and Wackernagel enclitics form one clitic chain, $-(m)a$ always precedes the (traditional) Wackernagel enclitics? While $-(m)a$ may move along the clausal spine, other Wackernagel clitics, including pronominal clitics, follow the $-(m)a$ particle. We explain this by adopting the view of Roberts (2012) and treat such clitics as resulting from head movement into the tail of the clause, i.e. FINP . The derivational template in (50) is what we suggest captures the pronominal clisis. Proclitics placed in positions linearly ‘higher’ than the Topic or Focus material, such as (40) or (41), may be derived, once more, through clause edge-internal incorporation. Assuming they target FIN^0 , pronominal clitics incorporate further, along with their remnant host, FIN^0 , to FORCE^0 . The postulation of FIN -to- FORCE movement may thus be motivated further by assuming that FORCE^0 requires the checking of some T-related feature which is specified on FIN . (For similar implementation, and additional motivation, of FIN -to- FORCE incorporation, see Roberts 2012.)

Pronominal clitics are thus minimal D categories that incorporate into FIN^0 . Inversely, ϕ -clitics are treated as non-D minimal categories which incorporate into v^0 .

While recognising the C- and v -level layers of focal information structuring, *qua* $\text{Foc}_{[C]}^0$ and $\text{Foc}_{[V]}^0$, it is true by theoretical extension and empirical factuality³⁷ that the nominal phase exhibit left peripheral projections dedicated to information structuring, viz. $\text{Foc}_{[D]}^0$. We leave the question of cross-phasal encoding of information structure for a separate discussion.

Given the evidence on *wh*-pseudo-doubling in (27) and (28), which we formalised in (29), we identified two *wh*-positions with two LP positions which, crucially, are phasally delimited.

37 See, among many others, Poletto (2006) and Giusti (2002) along with independent evidence cited therein.

7 APPENDIX: HISTORICAL SOURCES AND CITING CONVENTIONS

1300 Hittite texts are cited according to the standard Hittitological conventions. E.g., in the first example

MH/MS (CTH 188) HKM 46 obv. 15

provides the following information:

1305 **MH** Middle Hittite text. The text can also be Old Hittite (OH) and New Hittite (NH)

MS written down in Middle Script. The text can also be written down/copied in Old Script (OS) and New script (NS).

1310 **CTH 188** the number of the text as a composition according to the updated version of originally Laroche's Catalogue des textes hittites. Currently it is hosted at www.hethport.uni-wuerzburg.de.

HKM refers to autographic text editions in cuneiform. The following edition series are quoted in the paper:

HKM Alp, S. Masat-Höyük'te Bulunun Civi Yazılı Hitit Tabletleri, Ankara, 1991.

1315 **IBoT** Istanbul arkeoloji müzelerinde bulunan Boğazköy tabletlerinden seçme metinler, Istanbul, 1944-.

KUB Keilschrifturkunden aus Boghazköi, Berlin, 1921-.

KBo Keilschrifttexte aus Boghazköi, Leipzig / Berlin, 1916-.

1320 Unpublished texts or texts published outside major series are referred to in a different way, e.g., Bo 86/299, 577/u. Subsequent editions in the transliteration, with translation and commentary are referred to immediately after the text. E.g., the texts HKM were edited as Alp, S. (1991): Hethitische Briefe aus Masat-Höyük, Ankara.

1325 **Obv.** refers to the column on the tablet where the text is written down. The other most common option is rev.

15 refers to the line of the tablet the clause is written down in.

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