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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 C-system. After dissecting the left periphery of the clause, along the lines of Rizzi (1997), we adopt (and adapt) the notion of Defectivity (Roberts, 2010) to derive not only the semantic facts concerning information-structuring oscillation of  $-(m)a$  meanings, but also the syntactic facts concerning the configurational variation. In doing so, we crucially rely on the notion of Phase and accordingly suggest a phase-based structure of the Hittite clause structure and clause-internal incorporation.

## 1 INTRODUCTION & OVERVIEW

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 exhaustively 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.

Empirically, we focus 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

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a later (post-syntactic, or prosodic) stage. We support this view using evidence of (what we call) ‘strict’ versus ‘lax’ 2P placement of  $-(m)a$ .

We exploit some theoretical novelties in syntactic research – pivotally, the notion of phase – 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 [Sideltssev 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.

Our primary focus is on the ‘strict’/‘lax’ placement of the  $-(m)a$  clitic. 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 presupposes, in its very notation of the clitic boundary, marked with the  $\asymp$ -symbol. Take, as an example, a datum in (1) below which contains a parsing line containing a traditional view of direction ( $\rightarrow$ ) of cliticisation (CL) onto the HOST.

- (1) man  $\asymp$  kan <sup>D</sup>UTU-š  $\asymp$  I BELÍ  $\asymp$  YA  
 [HOST] ← [CL] [HOST] ← [CL] [HOST] ← [CL]  
 if LOC Majesty my lord my  
 ‘If Your Majesty, my lord, ...’

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

The directionality of apparent cliticisation in (1) may not be readily determined as it is, in fact, stipulative to assume leftward cliticisation across the board. 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 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 module. For instances such as (1), we will assume a different selection of clitic-hosts and, consequently, an inverse ‘direction’ of leaning, where appropriate.

- (2) man  $\asymp$  kan <sup>D</sup>UTU-š  $\asymp$  I BELÍ  $\asymp$  YA  
 [¬HOST] [CL] → [HOST] ← [CL] [HOST] ← [CL]  
 if LOC Majesty my lord my

‘If Your Majesty, my lord, ...’ (= $\text{=}$ )

Clitics not hosted on the right will be treated as proclitics, i.e. those heads that remain, in some sense, *in-situ*. We will thus adopt a view according to which cliticisation and clitic configurations are derived through narrow syntactic movement, driven by the notion of *defectivity* (to be explicated in detail below). Crucially for our purposes, the left-most elements in the string above, the logical conditional connective, is, under a particular theoretical construal of cliticisation, not a clitic host insofar as it does not, as we expound in following sections, trigger incorporation of the locative clitic. Hence, strings such as the one in (3) are not found in our corpus. Given the predicted absence of such strings, we notate (3) as ungrammatical, at least on terminological grounds, if not conceptual.

- (3) \* kan  $\neq$  man  $\text{D}$ UTU-š  $\neq$ I BELÍ  $\neq$ YA  
 LOC if Majesty my lord my  
 ‘If Your Majesty, my lord, ...’

An instance of pervading methodology in traditional, and theoretically less informed, morphosyntactic approaches to Indo-European, and 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. 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.

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

**SOME CONVENTIONS** 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 structure (BPS)  $X^{min}$ . 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, where relevant or applicable.

**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 in §3. This section presents our core proposal in three subsequent steps. First, we overview (in §3.1) the two cliticisation patterns of the  $-(m)a$  particle, for which we locate clausal positions. Secondly, in this regard (in §3.2), we analyse the structure of the left-periphery of the Hittite clause. Thirdly (in §3.3), we discuss the explanandum and bring together the theoretical tools our proposal requires.

## 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 in §3. 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.

In the vast majority of data,  $-(m)a$  marks contrast between subconstituents of the two conjuncts. For instance in (4), the contrast that is drawn is between ‘*your merchant*’ and ‘*his merchant*’, which we underline, following Goedegebuure’s (2014) notation.

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

- line 1. tuel = kan <sup>LÚ</sup>DAM.GÀR ŠÀ KUR AŠŠUR lē  
 your LOC merchant inside country ASSUR PROHIB  
 pai-zzi  
 go-3SG.PRS
- 2. apel = **ma** = kan <sup>LÚ</sup>DAM.GÀR ŠÀ 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.’

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 (4) 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’.

Expressions featuring *-(m)a* need not always mark contrast, as (5) shows.

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

1. <sup>m</sup>Wandapa-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.SC throw-3sg.pst
5. n=at ANA EN=YA UL karū ḫatrānu[n]

‘(1) Regarding the fact that Wandapa-ziti drove hastily to my lord (3) and discarded/disregarded (2) the tablet which he held<sup>2</sup> 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.’<sup>1</sup>

In (5), 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.

Reminiscent of, and possibly reducible to, the contrastive effect is the narrow-focus that *-(m)a* marks. In (6), *-(m)a* is placed higher to the position that the narrowly contrasted element comes from. In the following example, *-(m)a* has 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:

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

1. šummaš=šmaš kuyēš LÚ<sup>MES</sup> SAC ḫūdak kā ēšten
2. nu=šmaš<sup>D</sup>UTU-š=I kuit lenganunun
3. mān=wa=kan šA<sup>D</sup>UTU-š=I ḫUL-lun memian našma CŪB-tar  
kuedanikki [(anda) i]šda<sub>4</sub>maš\*teni\*
4. nu=wa<sup>\*</sup>r=a<sup>\*</sup>n ANA<sup>D</sup>UTU-š=I mem[išt(en)]
- 5. [(š)]ummaš=ma kuit GIM-an išda<sub>4</sub>maš-ten  
you.NOM.PL=but what when hear-2.PL.PST
6. n=at ANA<sup>D</sup>UTU-š=I UL mematteni

<sup>1</sup> In our translation, we follow [Hoffner \(2009: 342\)](#).

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.’<sup>2</sup>

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 (7):

(7) NH/NS (CTH 570) KUB 52.72 obv. 7

1. [aši                    Û-TUM] ANA MUNUS.LUGAL

this.ACC.SG.N dream to queen

<sup>D</sup>Zawalli-š=[m]a            parā ISBAT

Zawalli-NOM.SG.C=but out gave

‘Is it Zawalli that gave this dream to the queen?’<sup>3</sup>

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 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

2 Following Miller (2013: 302–3).

3 Following Mouton 2007: 187, 189.

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 (8) shows, taken from Goedegebuure (2014: 501), also contain adversativity involving narrow semantic contrast between constituents:

- (8) NH/NS (CTH 255) KUB 26.12 ii 2-9
1. našma=kan x[.....] našma šEŠ<sup>D</sup>[UTU-ŠI IŠTU MUNUS.LUGA]L  
ḫ[aššanza] šEŠ<sup>MES</sup> DUMU<sup>MES MUNUS</sup> NA[PTA]RTI anda u[škizzi?]
  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
  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 [towards him].’<sup>4</sup>

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

In the next section, we proceed with our main section and the analysis of the syntactic placement of  $-(m)a$ .

### 3 ANALYSIS

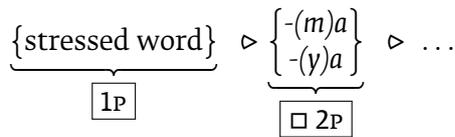
We suggest in this section the core analysis in three steps. First, in §3.1, we distil previous philological research of the placement of the  $-(m)a$  particle in descriptive terms, providing a cliticisation template and the two 2P effects (we call one ‘strict’ and the other ‘lax’). In §3.2, we then map the descriptive configurations onto a fine-grained left periphery of the clause, following the programmatic tenets of Rizzi (1997). Finally, in §3.3, we use notions of Phase, Defectivity and Clause Framing in concert to spell out the syntactic mechanics we propose are at play in Hittite.

<sup>4</sup> Following Goedegebuure (2014: 501).

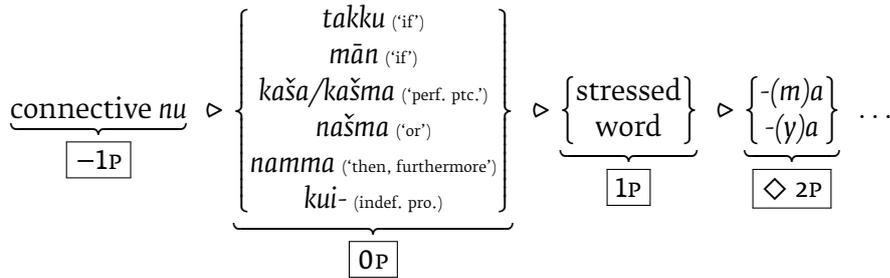
### 3.1 Cliticisation sites in hittite

Sideltsev and Molina (2015) 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-descriptions of cliticisation sites in Hittite are provided in (9) and (10) below. (We employ the ‘▷’ symbol to refer explicitly to linear precedence of the class of constituents.)

- (9) Strict second position ( $\square 2P$ ): after the first stressed word:



- (10) Lax second position ( $\diamond 2P$ ): after non-initial stressed word following *nu* and the closed set of words:



It is clear that the terminological difference between strict and lax 2P is eliminated if we ‘start counting’ from stressed words, as in (10).<sup>5</sup>

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 (10).

#### 3.1.1 Strict-second configurations: $\square 2P$

The paradigm of  $\square 2P$  configuration are those constructions where the particle  $-(m)a$  occupies the 2P, as the pre-theoretical Wackernagel account

5 The notion of ‘stressed word’ in (9) 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.

would predict. We repeat below three pieces of data that fit the template in (9).<sup>6</sup>

- (11) 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: ...’ (repeated from 8)
- (12) NH/NS (CTH 255.2.A) KUB 26.1+ rev. iii 45-52  
 [(š)]ummaš=ma kuit CIM-an išda<sub>4</sub>maš-ten  
 you.NOM.PL=but what when hear-2.PL.PST  
 ‘**but** when you have heard something, ...’ (repeated from ??)
- (13) NH/NS (CTH 255.1.A) KUB 21.42 + obv. i 33<sup>l</sup>-34<sup>l7</sup>  
 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.’ (repeated from ??)

The cases are uniform insofar as  $-(m)a$  is a left-peripheral and contrastive marker which triggers  $\bar{A}$ -movement of a maximal category<sup>8</sup> from within the clausal interior. In (14), for instance, the first position of the clause, and the host of the  $-(m)a$  particle, is provided by a minimal verbal category.

- (14) NH/NS (CTH 106.B.2) KBo 4.10+ obv. 10’-12’  
 5. šA<sup>m</sup>Ulmi-<sup>d</sup>10-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 the female line shall not take them.’ (repeated from ??)

Such data show that the edge-feature (EF) associated with  $-(m)a$  may be checked by a minimal category.

6 For more exhaustive evidence, see Sideltsev and Molina (2015).

7 Noted by Hoffner and Melchert (2008: 287).

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

3.1.2 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. Such particles in question are the following:

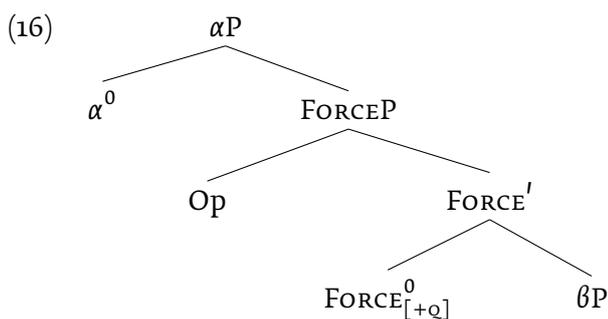
- (15) i. *nu* – connective, discourse-initial  
 ii. *takku* – conditional marker  
 iii. *mān* – conditional marker (‘if’/‘when’)  
 iv. *našma* – disjunctive (coordinate) marker  
 v. *kui* – relative (*wh*-) marker

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 FrameP (which we discuss in §3.3.2).

Furthermore, while *mān* may count as a first-position host to the  $2P$   $-(m)a$  particle, *nu* may not.<sup>9</sup> In §3, we show how these facts obtain.

**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  $\text{FORCE}^0$ . Before resuming, let us minimally outline the line of reasoning for an interrogative treatment of conditionals that we follow.<sup>10</sup>

The core idea is in treating *if*-clause conditionals as interrogative structures with a covert operator in  $\text{Spec}(\text{FORCEP})$ .<sup>11</sup>



<sup>9</sup> For a detailed account of the syntax of the *mān* particle, see Sidelstev (2015).

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

<sup>11</sup> 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 2001 for independent arguments.)

The adoption of a doubly edge filling Force material yielding conditional meaning in (16) appears sufficient for us to state the first property of clitic distribution. Since  $C^0$  is phasal, we take the highest C-field, i.e. FORCE<sup>0</sup>, to be endowed with the same phasal property. Thus any CP-embedding head,  $\alpha$ , does not access to the interior of CP, i.e. past the edge and the FORCE head.

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

- (17) LF, order and scope of the conditional and the adv. conjunction  
 a. and/but  $(-m)a$   $\triangleright$  if ( $m\bar{a}n$ )  
 b. \* if ( $m\bar{a}n$ )  $\triangleright$  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 at the conceptual-intentional interface, namely the one in (17a).<sup>12</sup>

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  $\triangleright$  and/but  
 MH/MS (CTH 261.II) KUB 26.17 obv. i 4 (Sideltsev, 2015: 127, ex. 1)  
**mān** <sup>D</sup>UTU-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  $\triangleright$  if/when  
 OH/OS (CTH 1.A) KBo 3.22 obv. 3 (Sideltsev, 2015: 128, ex. 2)  
 n=ašta <sup>D</sup>IM-un*n*-i=**ma** **mān** āššu-š  
 CONN-LOC Stormgod-DAT.SG-but when dear-NOM.SG.C  
 ēš-ta  
 be-3.SG.PST

12 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  $\triangleright$  if: ‘But/however if you decide ...’  
 ii. PF order if  $\triangleright$  but: ‘If, however/\*but, you decide ...’

‘But when he was dear to the Stormgod.’

The next section examines, and locates the position of  $-(m)a$  in, the Left Periphery of the Hittite clause in greater detail. Further evidence for the phasally delimited clause is provided.

### 3.2 Left Periphery in Hittite

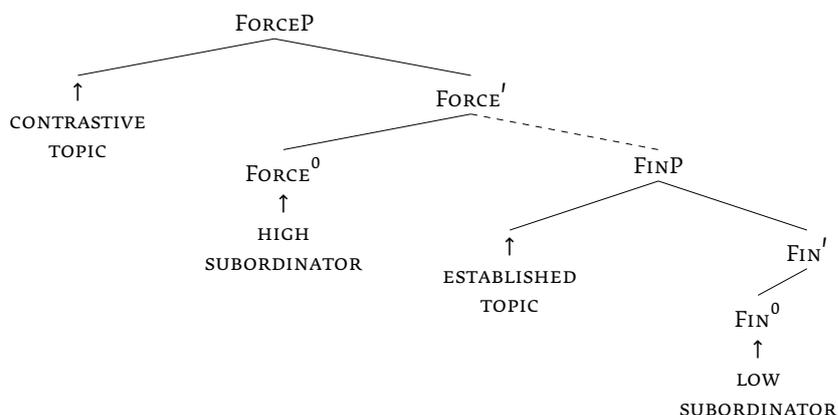
We start by observing that Hittite lexicalised two subordinators, which will serve to buttress our analysis according to which the lax 2P effect derives from the inability of the first-position element to act as ‘clitic host’ for  $-(m)a$ . The reader should also note that, in the discussion that ensues, 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.

#### 3.2.1 Two subordinators between FORCEP and FINP

The diagnostic for the two positions of subordinators – one in ForceP and another in FinP – comes from the distribution of established and contrastive topics. Contrastive topics, being in  $\text{Spec}(\text{FORCEP})$ , precede subordinators, whereas established topics in  $\text{Spec}(\text{TOPP})$  precede subordinators in FinP and follow subordinators in FORCEP.

We illustrate this in (20):

(20)



**ESTABLISHED TOPICS** The position of subordinators vis-à-vis established topics is illustrated by the following two examples.

In the first example, (22) below, <sup>D</sup>UTU-Š-I BELI-YA “Your Majesty, my lord” is obviously an established topic, as follows from the immediately preceding context given here in the translation. The subordinator precedes

the established topic and hosts  $-(m)a$ . Thus the relevant fragment of the structure of the clause should be construed as per (21), given the data in (22).

(21)  $\left[ \text{FORCEP} \text{ SUBORDINATOR} \left[ \text{TOPP} \text{ ESTABLISHED TOPIC} [\dots] \right] \right]$

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

**mahhan**=ma <sup>D</sup>UTU-š=I BELI-YA hūittiy-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 ...”.

The following example in (24) is similar in that it also contains an established topic ‘I, My Majesty,’ but here the subordinator follows it. Thus we construe it as involving the structure in (23).

(23)  $\left[ \text{FORCEP} \dots \left[ \text{TOPP} \text{ ESTABLISHED TOPIC} \left[ \text{FINP} \text{ SUBORDINATOR TP} \right] \right] \right]$

(24) MH/NS (CTH 259.B) KUB 13.20 obv. i 25  
(But when the army does not appear before My Majesty,)

nu <sup>D</sup>UTU-š=I tūw-az **mahhan** hatrā-mi  
CONN SUN=my far-abl when write-1SG.PRS

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

What supports our account even further is the following curious evidence that shows lexical subordinators occupy two distinct structural positions.

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

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

“But when my father died”<sup>13</sup>

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

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

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

“Now, when it happened, that my brother went to Egypt”<sup>14</sup>

In both (25) and (26) there are – *prima facie* redundantly – two subordinators in each clause: *maḥḥan* and *kuwapi* with the same meaning, ‘when’. *Maḥḥan* is at the clause’s left edge, whereas *kuwapi* occupies a position closer to the verb. We posit that, while *kuwapi* is in Spec(FINP), *maḥḥan* is its 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 Spec(FINP) 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.<sup>15</sup> The differential realisation of an underlying identical *wh*-item, under assumptions regarding VI,<sup>16</sup> motivate a view according to which the higher *wh*-item *maḥḥan* belongs to a distinct spell-out domain, with regards to *kuwapi* in Spec(FINP). This may be modelled by assuming that the relevant  $\bar{A}$ -feature that marks discourse contrast spreads from the  $\text{Fin}^0$  probe onto the *wh*-goal. This combination of the restriction on spell-out domain and the epiphenomenal  $\bar{A}$ -marking of the goal would derive the differential lexical realisation.

Therefore, the repetition of the *wh*-item lends further support to our analysis according to which the ‘host’ of *-(m)a* has particular discursal effects. The two VI rules for the two *wh*-item are given in (27) where VI of *maḥḥan* is sensitive to categorial maximality as per Embick (2010) (cf. fn. ??). We therefore assume that the VI for each of the *wh*-items is restricted by a phase ( $\pi_1$  and  $\pi_2$ ).

(27) VI procedures for *wh*-items:

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

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

15 This is argued for at length in Mitrović and Sidelstev (2017) where the semantic analysis of *-(m)a* is provided and mapped from the syntactic structure proposed here.

16 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).

$$b. D^0 \Leftrightarrow \langle mahhan \rangle / \left[ \begin{array}{c} \text{WH} \\ \text{TIME} \\ (\text{CONTR}) \end{array} \right] \Big|_{\pi_2}$$

Embick (2010) contends that the relevant boundary that delimits the domains for VI is that of a phase. 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.

**CONTRASTIVE VS ESTABLISHED TOPICS** It was established in the previous section that subordinators in  $\text{FORCE}^0$  precede established topics and host  $-(m)a$ . This entailed construing the clause fragment as in (28):

$$(28) \left[ \text{FORCEP} \text{ SUBORDINATOR} \left[ \text{TOPP} \text{ ESTABLISHED TOPIC} [\dots] \right] \right].$$

However, if a clause contains a contrastive or new/shifted/reactivated topic, they invariably precede subordinators and host  $-(m)a$ . This is particularly obvious when a clause simultaneously contains an established topic:

- (29) 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)

$\text{L}\dot{\text{U}}^{\text{MEŠ}} \text{KUR}^{\text{URU}} \text{Mizra} = \mathbf{ma} \text{ mahhan } \text{ŠA} \text{KUR}^{\text{URU}} \text{Amka} \text{GUL-}\text{h}\text{huwar}$   
 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)”<sup>17</sup>

In the example  $\text{L}\dot{\text{U}}^{\text{MEŠ}} \text{KUR}^{\text{URU}} \text{Mizra}$  ‘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,  $\text{ŠA} \text{KUR}^{\text{URU}} \text{Amka} \text{GUL-}\text{h}\text{huwar}$  ‘the attack on Amka’ is an established topic as obviously follows

17 Following del Monte (2009: 88, 113).

from the previous context given here in translation. *Mahhan* follows the activated topic and  $-(m)a$  while preceding the established topic.

This example very clearly shows that if there are contrastive or new/shifted topics as well as established 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. Established topics follow the subordinators which are in FORCEP and precede the subordinators which are in FINP, linearly in the immediately preverbal position. The latter option is seen in the following example.

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

**tuk**            <sup>m</sup>**Tuppi**-<sup>D</sup>U[-**up** <sup>D</sup>UT]U-š=I maḥḥan paḥš-ḫi  
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 established topics, the information structure of *tuk* ‘you’ in (30) is more marked. (30) involves a kind of correlation – *you* protect *me*, I protect *you*. Thus the information structure status of (30) is different from the examples we discussed above and it obviously conditions the fronting of the noun phrase to Spec(FORCEP), and not to Spec(TOPP) as we supposed in our discussion of the examples with established topics above.

Such examples clearly set contrastive/new/shifted topics apart from the established topics. The former, we place in Spec(FORCEP), and the latter in Spec(TOPP). Subordinators in FORCEP follow contrastive/new topics and precede established topics whereas subordinators in FINP follow both contrastive and established topics. The proposed left-peripheral structure is the one in (31).

(31)  $\left[ \begin{array}{c} \text{subordinator} \\ \text{FORCEP} \end{array} \left[ \begin{array}{c} \text{established} \\ \text{TOPP} \end{array} \text{topic} \left[ \begin{array}{c} \text{subordinator} \\ \text{FINP} \end{array} \left[ \text{TP} \right] \right] \right] \right]$

### 3.2.2 FORCEP vs Spec(TOPP)

We now turn to exploring further the view that ForceP is the locus of contrast and contrastive topics while Spec(TOPP) hosts established topics. There is additional evidence for the structural treatment of  $-(m)a$  being placed in FORCE<sup>0</sup>, and not (always) in Top<sup>0</sup>, as well the differential placement of contrastive and established topics (pace [Samuels 2005](#)

and Yates 2004). Evidence comes from three main independent considerations: multiple topics, tetic sentences, and subordinate clauses with established 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** GE<sub>6</sub>-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 contrastivity having nothing to do with topicality at the clausal level is available. This makes it possible to divorce topicality and contrast. The clauses have truncated CP, where only one head is projected –  $C^0$ .  $-(m)a$  naturally occupies this position.

The following example, which we have already discussed above as for the function of  $-(m)a$  shows the difference between contrastive topic and established topic, with  $-(m)a$  occupying the position different from  $\text{Top}^0$ .

- (34) NH/NS (CTH 255.2.A) KUB 26.1+ rev. iii 45-52
1. šummaš=šmaš kuyēš LÚ<sup>MES</sup> SAC ḥūdak kā ēšten
  2. nu=šmaš<sup>D</sup> UTU-š=I kuit lenganunun
  3. mān=wa=kan šA<sup>D</sup> UTU-š=I ḤUL-lun memian našma GÜB-tar  
kuedanikki [(anda) i]šda<sub>4</sub>maš\*teni\*
  4. nu=wa\*r=a\*n ANA<sup>D</sup> UTU-š=I mem[išt(en)]
  - 5. [(š)]ummaš=**ma** kuit GIM-an išda<sub>4</sub>maš-ten  
you.NOM.PL=but what when hear-2PL.PST
  6. n=at ANA<sup>D</sup> 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”<sup>18</sup>

In cl. 5 of the example the topic  $[(\check{s})]umma\check{s}$  ‘you’ is established, not contrastive but it hosts  $-(m)a$  which has sentential scope marking weak adversativity, and not narrow scope over  $[(\check{s})]umma\check{s}$  ‘you’. Thus we analyse the established topic  $[(\check{s})]umma\check{s}$  ‘you’ as being placed in Spec(TOPP) and successively moving to Spec(FORCEP) to check the relevant [EF] with  $-(m)a$  in FORCE<sup>0</sup>. 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 an established 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<sup>0</sup>. We buttress this oppositional view further.

Further evidence for two distinct positions, i.e., one in Spec(TOPP) and another in Spec(FORCEP), and the (higher) placement of  $-(m)a$  in FORCE<sup>0</sup> (as opposed to its placement in TOP<sup>0</sup>) 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/LNS (CTH 105) KUB 23.1 rev. iv 14-16

1. tuel=kan <sup>LÚ</sup>DAM.GĀR ŠĀ KUR Aššur lē pai-zzi  
your=LOC merchant inside country Assur PROHIB go-3SG.PRS

→ 2. apel=**ma**=kan <sup>LÚ</sup>DAM.GĀR ŠĀ KUR=KA lē  
his=but=LOC merchant inside country=your PROHIB  
tarna-tti  
let-2SG.PRS

18 Following Miller (2013: 302–303).

“(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 Spec(FORCEP) whereas other topics are positioned lower in the clause. Specifically, the contrastive topics  $\check{S}A\ KUR\ A\check{S}\check{S}ur$  ‘into the country of Assur’ and  $\check{S}A\ KUR=KA$  ‘your country’, the established topic  $LU^DAM.GAR$  ‘merchant’ are in Spec(TOPP) of iterated topic projections. Our account of multiple topics is in line with other independently motivated analyses: among others, see Bošković (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.

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 demonstrated with evidence in the previous section, in case there is a subordinator and an established topic in a clause, it is the subordinator that cliticises (hosts) the particle, not the established 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.)

$ma\check{h}\check{h}an=ma^D\ UTU-\check{S}=I\ BELI=YA\ \check{h}\check{u}\check{i}tti\text{-}at$   
when=but sun=my lord=my march-3SG.PST

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

Contrastive and new topics, on the other hand, precede the subordinator which in its turn precedes the established 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)

$LU^{ME\check{S}}\ KUR^{URU}\ Mizra=ma\ ma\check{h}\check{h}an\ \check{S}A\ KUR^{URU}\ Amka$   
people Egypt=but when of Amka  
 $GUL-\check{h}\check{h}uwar\ i\check{s}tama\check{s}\check{s}\text{-}anzi$   
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)

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  $\text{FORCE}^0$  (due to independent factors).

This yet again warrants the position for  $-(m)a$  marking contrast in  $\text{FORCE}^0$  and the position for established topics in  $\text{Spec}(\text{TOPP})$ .

Nonetheless, as was shown by Sideltssev and Molina (2015), the functions of Hittite  $-(m)a$  do not seem to be descriptively exhausted by contrastive uses, as we briefly discussed in §2. It is important to bear in mind that our account permits the possibility that anaphoric  $-(m)a$  occupy  $\text{TOP}^0$  and the focus-sensitive  $-(m)a$  sit in  $\text{Foc}^0$ .

### 3.2.3 Spec vs Head

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  $\text{FORCE}^0$ , which leads to potential inconsistencies. However, as we mentioned in 3.2.1, 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. The account we have developed leaves open this possibility, while locating, in more precise structural details, stemming from both the morphosyntactic as well as semantic considerations, the two subordinator positions in the relevant specifier positions.

Another approach would be to follow Koller (2015: 91–92) who places subordinators in  $\text{FP}_2$ , a functional projection higher than the position of subject, but lower than  $\text{FORCEP}$ . 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.

‘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), but in case they occur in subordinate clauses, they normally follow both subordinators and the  $-(m)a$  marker, regard-

less of whether *-(m)a* cliticises onto the subordinator or onto the contrastive topic (Hout, 2003b: 184–185), as is seen in the following examples.

- (38) a. NH/NS (CTH 69.A) KUB 19.49+ obv. i 15  
**mahh[an=ma=k]an** ui-t                      <sup>m</sup>Ura-<sup>D</sup>Tarḫunta-š  
 when=but=loc              come-3SG.PST Ura-Tarhunta-NOM.SG.C  
 NĪŠ DING[IR-LÌ šarra-i-t]  
 oath god              break-3SG.PST  
 “But when Ura-Tarhunta proceeded [to transgress] the oath”  
 (Beckman, 1996: 78)
- b. NH/NS (CTH 69.A) KUB 19.49+ obv. i 19  
**GI[M-a]n=ma=za** ui-t                      ŠEŠ=Y[A              <sup>m</sup>Arnuwandaš  
 when=but=REFL come-3SG.PST brother=my Arnuwanda  
 DINGIR-LÌ-iš      kiš-at]  
 god-NOM.SG.C become-3SG.PST.MED  
 “But **when** it happened that [my] brother [Arnuwanda died]”  
 (Beckman, 1996: 111)
- 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)
- 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 ḫuitti)]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)

Thus the position of ‘phraseological verbs’ is another diagnostic to keep established topics which follow ‘phraseological verbs’ separate from contrastive topics which precede ‘phraseological verbs’.<sup>19</sup>

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

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

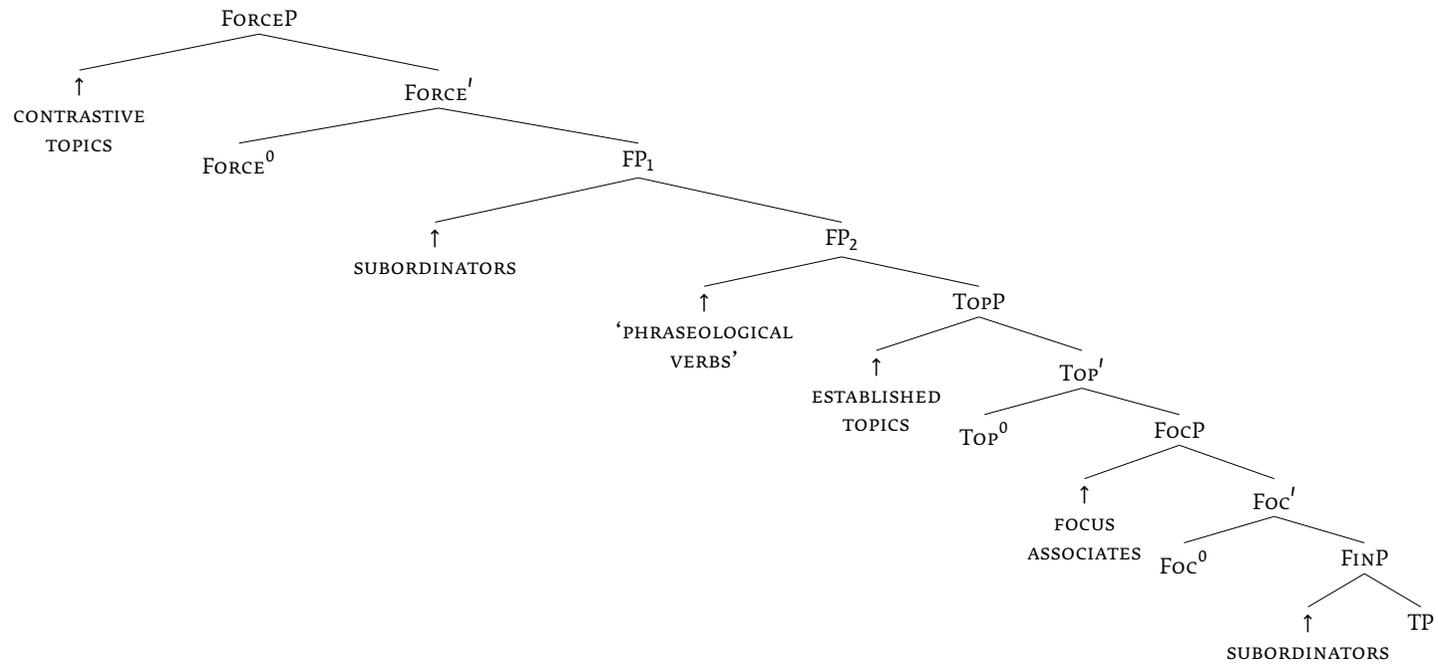
(39) NH/NS (CTH 106.I.1) Bo 86/299 obv. i 97

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

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

Here ABU=YA ‘my father’ is the established topic, thus *maḥḥan* cannot be analysed as *sittin* in FIN<sup>0</sup>. However, in the light of Sideltssev (2017), this deviating example should be explained as attesting *maḥḥan* as a syntactic clitic. The data thus require a very extended split CP of the kind we propose below. Where specifiers are underspecified in the structure, we leave the question technically open whether the subordinators or phraseological verbs are structured as heads of or specifiers to the relevant projections.

(40)



## 3.2.4 The Topic-Focus relation

We now briefly reinforce and further the view that foci and topics occupy structurally distinct positions. Evidence for established topics preceding identificational focus marked by  $-(m)a$  is provided by cl. 2 of the following example:

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

1. n=at pānzi ANA DINGIR-LÌ IŠTU NA<sub>4</sub> 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?”<sup>20</sup>

Here the established topic ANA DINGIR-LÌ ‘to the deity’ precedes focus IŠTU GUŠKIN=ma ‘with gold’ and establishes the TOPP  $\triangleright$  FocP hierarchy. The established 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 in Foc<sup>0</sup>.

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*.

(42) 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  
HUL-lu tiyan ḫar-zi  
evil.ACC.SG.N step.PRTC.NOM.SG.N AUX-3SG.PRS

“Why has that grandmother of yours done evil?” (de Roos 2007: 72, 80; Mouton 2007: 245, 250).<sup>21</sup>

## 3.2.5 Low Focus in Hittite?

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:

<sup>20</sup> Following Ünal (1978).

<sup>21</sup> See Mouton (2007: 250) for adverbial treatment of HUL-lu.

(43) NH/NS (CTH 584) KUB 15.1+ obv. ii 13-14

1. *kū-š=mu*                      *kui-ēš*                      *MAMETE*<sup>MES</sup>  
this-NOM.PL.C=me which-NOM.PL.C oaths
2. *ariyašešn-az* *kuitta*                      *GIM-an*  
oracle-ABL each.NOM.SG.N as  
*SI×SÁ-at*  
establish-P3SG.PST.MED
3. *nu*    *kinun* *kuit* *arḫa* *aniya-uwanzi* *UL*    *tarahḫ-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)<sup>22</sup>

The initial *ariyašešn-az* in cl. 2 of (43) cannot be interpreted either as focus-associating or as standing in for an established 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 (44).

(44) NH/NS (CTH 584) KUB 15.1+ obv. i 13-14

1. *ariya-wen*  
inquire.by.oracle-1PL.PST
2. *nu*    <sup>D</sup>*Hepat* <sup>URU</sup>*Uda* *SI×SÁ-at*  
conn Hepat Uda establish-3SG.PST.MED

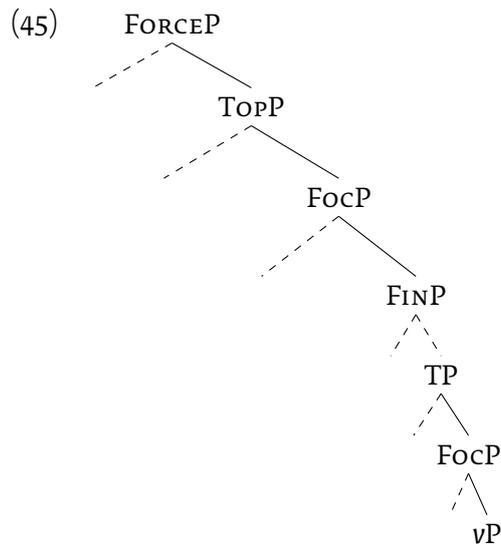
“(1) We made an oracular inquiry (2) and Hepat of Uda was designated.” (de Roos, 2007: 89, 98)

The construction expresses one action described by two verbs, in (44): *ariyawen* “we made an oracular inquiry” and *SI×SÁ-at* “it was determined/established/designated”. See many more analogous contexts in KUB 56.24 (de Roos, 2007: 261-265) and HW<sup>2</sup>A (Friedrich and Kammenhuber, 1984) for further attestations and discussion.

Contexts like the one in (44) establish, with a very high degree of certainty, if not beyond doubt, that normally *ariye-* “make an oracular inquiry” and *SI×SÁ* “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, *SI×SÁ* “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

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

the sentences where the verb denoting how the information was established, *ariye-* “make an oracular inquiry”, is nominalised as *ariyašēšar* ‘oracle’, as in (43) above. No topicalisation is ever present in the context—as the two actions, denoted both by the nominalised *ariyašēšar* “oracle” and by the finite verb *siḡsá-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 (43) are related to information structuring. Therefore, (43) makes it necessary to introduce some changes in the left peripheral structure we have been proposing to involve, at least, the arrangement of projections as given in (45).



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.<sup>23</sup> 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.

23 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.

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 Megerdooian (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, we take the relevant low focus position to be related to the  $vP$  phase.

### 3.3 Defectivity, clause-internal phases and the clausal frame

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 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 derivation, 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 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 clause feature. In our take on the fine structure of the LP in Hittite, we predict that  $-(m)a$  associate with the Force, Topic, or (either the high/clausal or the low/ $v$ -level) Focus heads.  $F_{IN}^0$ , as the lowest clause-internal head, does not associate with  $-(m)a$  for reasons. Firstly,  $F_{IN}^0$  presumably has closer derivational, and interpretational, affinity with  $T^0$  (*qua*  $\phi$ -feature inheritance; see Chomsky 2007, 2008, Richards 2007b, and Goto (2011), *int. al.*) than the rest of the clause structure. Secondly, and in relation to our first argument,  $F_{IN}^0$  is the locus of pronominal clitics in Hittite which are taken to be defective  $D^{min/max}$  elements that incorporate into  $F_{IN}^0$ , in line with Roberts (2010); Roberts (2012).

In the following two subsections, we buttress this view. In §3.3.1, we first relate the notions of phase and defectivity as they apply to our anal-

ysis. Secondly, and ultimately, in §3.3.2 we propose a supra-clausal formative whose complement is the clausal FORCEP and which derives the  $\diamond_{2P}$  clitic configurations sketched in (10).

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 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, 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.

Before proceeding, we therefore lay out the theoretical ingredients our account requires and upon which it is founded. The notion of phase is central and, with it, the notion of defectivity. In the following subsection, we explicate both terms in turn.

### 3.3.1 Phasality & Defectivity

Here we 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.

In our discussion, we employ a featural notation for phase heads using the binary feature  $[\pm\pi]$ , which is consistent 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.<sup>24</sup> In regards to *what* the  $C^0$  represents, we have also been assuming a fine-grained clausal spine in the sense of Rizzi (1997), *int. al.*, which encode information-structuring properties.

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

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 (46).<sup>25</sup>

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

As CPs may serve as complements of hyperclausal heads, such as coordinate heads etc., it follows from (46) 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  $0P$  words, which we ascribe pre-theoretically as occupying the zero position (10).

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.

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) 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 (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

<sup>25</sup> 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).

that deals with these issues most exhaustively is, to date, that of [Totsuka \(2015\)](#).

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 IS functional levels, which one is phasal? The 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 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.<sup>26</sup> In regard to the first 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 §3.3.2 how the empirical facts in Hitite may be captured by locating [ $\pi$ ]-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).

- (47) 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 formal features ( $F$ ) on a minimal category that enters an Agree relation as a Probe ( $P$ ) will incorporate the Goal ( $G$ ) iff (48) obtains.

- (48)  $F_G \subset F_P$

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

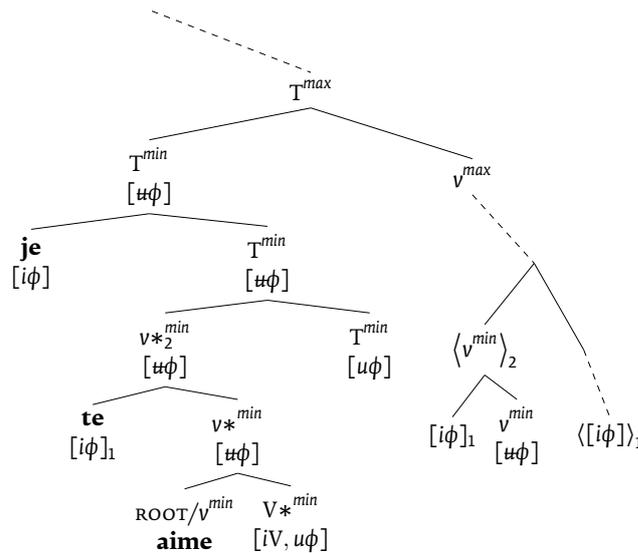
<sup>26</sup> For a detailed discussion, see [Kidwai \(2010\)](#). Note, however, that this discussion attempts to reconcile the Cartography of the T-field, and not the C-field of [Rizzi \(1997\)](#). We find the two questions conceptually on a par.

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  $\phi$ -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 (49), featuring the subject and the object clitics, derives as a complex  $T^0$ , as shown in (50). The vocabulary-associating lexical material is marked in the T-system only, as this is where the ChR algorithm is suggested to converge.

- (49) Je t'aime.  
I you.CL-love  
'I love you.'

(50)



The general sketch of deriving head movement for (49), adapted from Roberts (2010: 104, ex. 104), is given in (50), 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  $v$ , in line with (47) and (48).

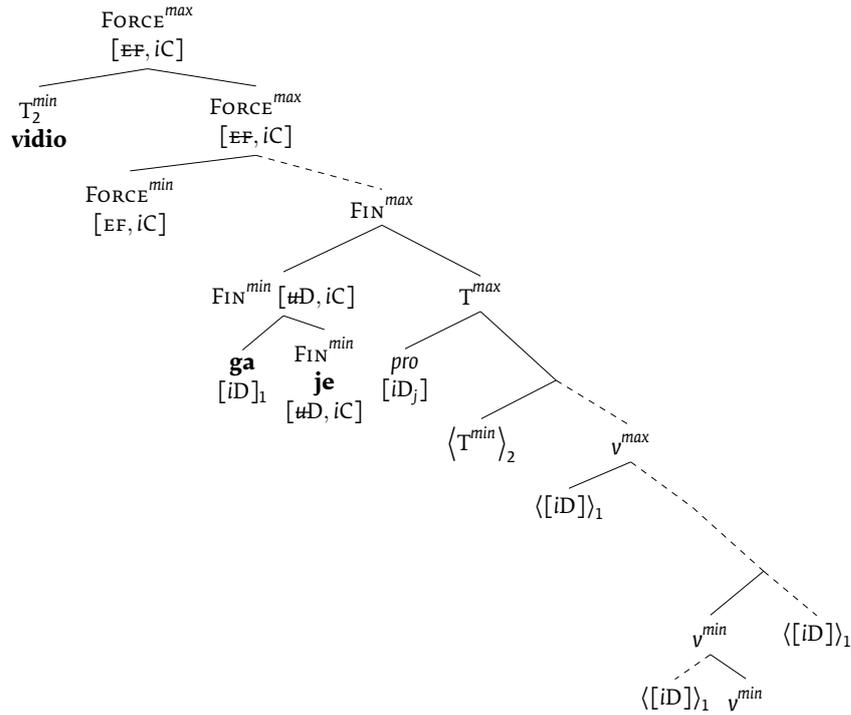
Conversely, an example of C-level cliticisation is derived using the same mechanism, *modulo* the fact that clitic goals are D (and not  $\phi$ ) heads and the corresponding probes C heads.<sup>27</sup> As an illustration, take (51), a transitive sentence with object clitic, where the cliticisation is taken to take

27 For pronominal clitics, this is suggested to be the lowest head in the C-system, i.e.  $\text{FIN}^0$ .

place in the C-domain, as derived in (52).<sup>28</sup>

- (51) Vidio ga je.  
saw him.CL.ACC AUX.3.SG  
'He saw him.'

(52)



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

28 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  $\text{FIN}^0$  (see Bošković 1997: 153 and references cited there for details and discussion).

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 [Mitrović and Sideltsev 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. The modification is seemingly minor with regard to (48) which can be formally restated as in (53), which we programatically understand here as a matter of cross-linguistic parametrisation.<sup>29</sup>

$$(53) F_G \subset F_P \mid [EF] \in F_P$$

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 empirical and theoretical considerations put forth in [Mitrović \(2017\)](#).

In this regard, the so-called verb-topicalisation in Slavonic (termed by [Fanselow and Ćavar 2002](#)), derived in (52) 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 since the feature set on the verbal goal does not constitute the proper subset of the FORCE<sup>0</sup> probe, since the [ $\mu$ D] is checked derivationally at an earlier stage with FIN<sup>0</sup>. 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.

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 not the only, role of the [EF] 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 ([Mitrović, 2017](#)), as well a proper subset relation between a phase head and a (defective) goal, then it is both natural and theoretically more parsimonious, at least on

29 For instance, while (53) 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. FIN<sup>0</sup>. We leave this to be discussed and explored elsewhere.

methodological (if not conceptual) grounds, to regard [EF]s as operative in constituting a Defective relation.

### 3.3.2 Clause framing

This last subsection provides the structural means for distinguishing  $\diamond_{2P}$  and  $\square_{2P}$  clitic configurations.

In order to do so, we adopt the notion of the clausal Frame, encoded as a left-most clausal layer. Following Wolfe (2016), who builds on and draws from Haegeman (2000), Sigurðsson (2004) and Giorgi (2010), we associate Frame with a scene-setting function, anchoring the speech act in terms of locative and temporal deixis and speech participants.

The candidate occupying the Frame<sup>0</sup> position in Hittite is the *nu* particle which need not encode all of the functions mentioned above and motivated by the relevant authors for different languages.<sup>30</sup> For our purposes, and for now, we assume *nu* encodes, as its core property, a supra-clausal discourse cohesive function. Its supra-clausal status explains, we feel, its inability to ‘count’ as first-position ‘host’, in a pre-theoretical sense.

We upgrade the FrameP theory by further exploiting the idea that Frame<sup>0</sup> is supra-clausal. It follows from this that Frame<sup>0</sup> is supra-phasal but may still engage in Agree operations with the interior of the clausal interior.<sup>31</sup> A crucial prediction, that is empirically borne out in Hittite, is that the *vP* interior is neither agreeable with nor, consequently, movable into the edge of the third Frame phase, under both strong and weak conceptions and definitions of the PIC.

(54)  $\lceil \rceil P$

Richards (2007a): only heads with odd-numbered formal weight are phasal, hence Frame<sup>0</sup> cannot be phasal, *ceteris paribus*.

Let us now assume that all clauses are framed, i.e. embedded under  $\lceil \rceil P$ . The (con-) Junction of clausal (con-) junctives may, under a strict application of Richards’s (2007a) weight metric, be assumed to be phasal. Under the assumption that J<sup>0</sup> is phasal, we also inadvertently capture and predict sufficiently well the nature of Ross’s (1967) Coordinate Structure

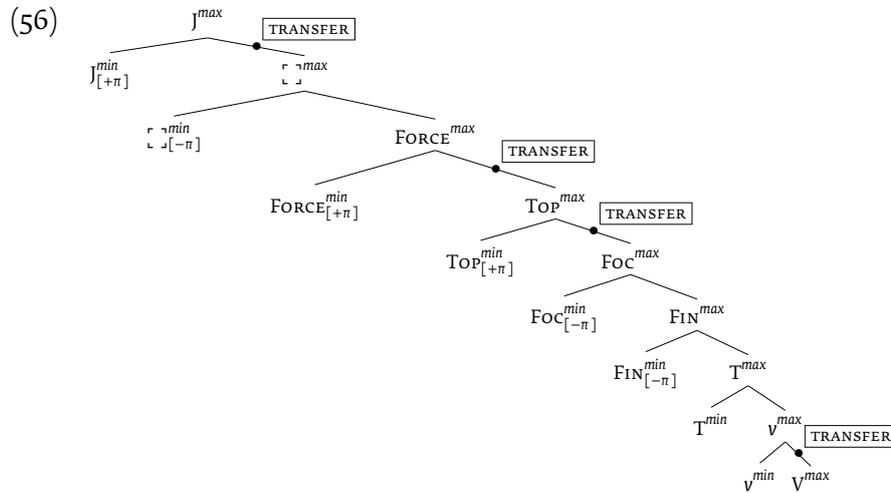
30 We find another theory, essentially that of Laka Mugarza (1990), more compelling in terms of understanding the encoding (at least some) speech acts. Since nothing hinges on our adopting a full-scale semantic understanding of the Frame<sup>0</sup>, as per authors cited, we do not pursue the intricacies further at this point.

31 Empirical evidence for this is hard to refute: see Polinsky and Potsdam (2001) and Richards (2012: 138, exx. 8–12) for empirical motivation of phasal transparency of Agree and Ott (2009) for an overview of the theoretical account and justification. In particular, see Richards (2012) for an account of cross-phasal Agree phenomena hinging on defectivity.

Constraint. Another argument for the phasal status of  $J^0$  comes from the conceptual necessity that the clause, headed by a phasal head, or phasal heads, also be transferred. [Watumull \(2012b, a\)](#) demonstrates, independently from our arguments, that spelling out (transferring) the final phase requires a ‘Boundary symbol’ which, in his system, translates into  $J^0$  in our system.

	CATEGORY	$\alpha\pi$	
(55)	VERBAL DOMAIN	$V^0$	–
		$v^0$	+
		$T^0$	–
		$C^0$	+
		$\lceil \rceil^0$	–
		$J^0$	+

Note that this proposal solves a theoretical problem associated with Transfer. If  $\text{FORCE}^0$  is phasal ([Totsuka, 2015](#)), then  $\text{FORCEP}$  remains untransferred *ceteris paribus* (cf. also independent problems raised in [Watumull 2014](#)). Under our proposal, the Frame head,  $\lceil \rceil^0$ , lexicalised by *nu* in Hittite, still has access to the edge of  $\text{FORCEP}$  while allowing for its consistent transfer by virtue of the structural presence of (the phasal)  $J^0$ . [Totsuka \(2015\)](#) shows that the prediction of untransferred  $\text{FORCEP}$  is borne out empirically (e.g., Aux-drop, gapping, particle-stranding ellipsis in Japanese, German Topic-drop, and Subject-drop in English). We contend this evidence is in line with our account also and that the latter constructions do not involve  $\lceil \rceil^0$ , nor  $J^0$ . Integrating [Totsuka’s \(2015\)](#) phasal view of the clausal LF with our Frame and Junction heads, and the motivated LP in Hittite (45), we suggest that the fine structure of the clausa, and supra-clausal, structure in Hittite be along the lines given in (56). We also include the ‘low focus’ phase, viz.  $vP$ .



The structural presence of the  $\lceil \ ]$  also provides the distributional explanandum of the  $\diamond 2P$  (10), where conditionals (among other logical operators and terms) constitute the first-position. We adopted the view that conditionals are syntactically adjoined to, or in the edge of, FORCEP. Our analysis of clause-internal boundaries, with regard to (56), predicts that elements in the edge of FORCE have no access to clause-internal material (which may be generally characterised as the complement of FORCE<sup>0</sup>). The general insensitivity of conditional markers, like *mān*, to the configurations of the *-(m)a* adversative, are borne out by this phasal view.<sup>32</sup>

Note, however, that Totsuka's (2015) LP contains a single Topic position, identified as being phasal. Our tree above contains another, lower, Topic layer, in line with Rizzi's (1997) proposal for Italian which Newton (2007: 120ff.) demonstrated as resembling Latin and Ancient Greek. Our analysis of the left periphery in Hittite, provided in §3.2, is in line with this view.

The question of location of transfer points within the spine may well be subject to parametrisation, which we leave for future research. It is sufficient, for our purposes here, to note that the motivated transfer trigger between the FORCE and the TOP categories, derives the empirical facts we discuss for Hittite, especially in regard to the strict/lax 2P effects. The incorporation of TOP into the FORCE head is also sanctioned on formal grounds since, definitionally, the phase heads are the sole loci of internal merge.

Also recall our treatment of the  $-1/0P$  particle *nu* in (10). We propose to analyse and identify the position of the particle *nu* as the non-phasal

<sup>32</sup> For additional cross-linguistic motivation of phase-sensitivity of conditionals, see Tomaszewicz (2012).

$\lceil \rceil^{min}$ . Just as with the incorporation of  $TOP^0$  into  $FORCE^0$ , so the incorporation of  $\lceil \rceil^0$  into  $J^0$  also involves movement of a non-phasal category into the strictly locally higher phase category. This in essence derives the differential configurations we set out to account, viz. (9) and (10).<sup>33</sup>

#### 4 DISCUSSION, CONCLUSION & OUTLOOK

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, which is labelled a Wackernagel  $2P$  clitic in literature, we have not related our account on the placement of  $-(m)a$  with the placement of other Wackernagel elements (such as  $2P$  pronouns, for instance).

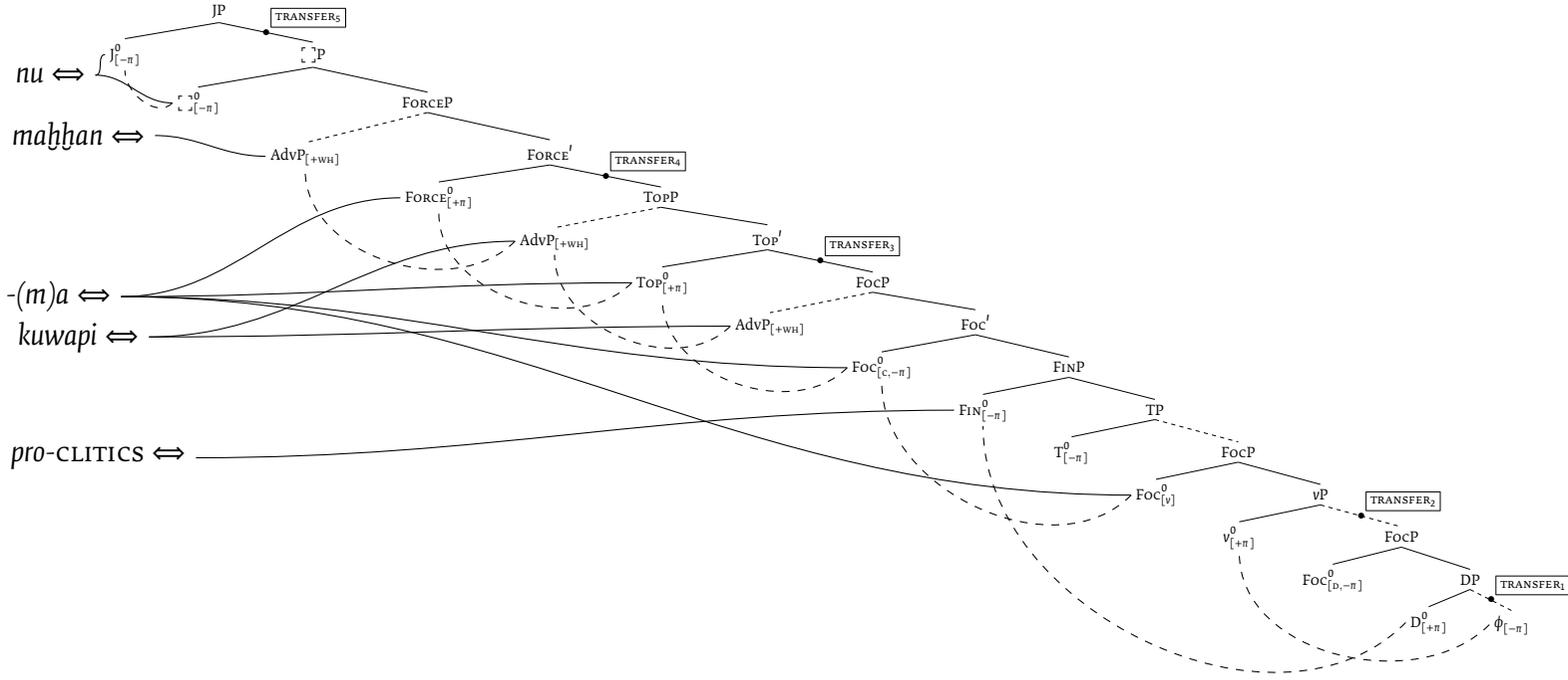
How do we explain the fact that in cases when  $-(m)a$  and Wackernagel enclitics form one clitic chain,  $-(m)a$  always precedes the (traditional) Wackernagel enclitics? While  $-(m)a$  may move along the clausal spine, other Wackernagel clitics, including pronominal clitics, follow the  $-(m)a$  particle. 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 (52) is what we suggest captures the pronominal clisis. Proclitics placed in positions linearly ‘higher’ than the Topic or Focus material, such as (41) or (42), 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

<sup>33</sup> In order to keep our analysis in line with some foundational principles, such as the No-look-head and the Strict Cycle, we find it reasonable to argue for the  $J-\lceil \rceil$  relation being established prior to the derivation of the lower cycles. This argument is logically based on Chomsky’s (2013) motivation of the C-T relation obtaining prior to the lower cycle.

may thus be motivated further by assuming that  $\text{FORCE}^0$  requires the checking of some T-related feature which is specified on  $\text{FIN}$ . (For similar implementation, and additional motivation, of  $\text{FIN}$ -to- $\text{FORCE}$  incorporation, see [Roberts \(2012\)](#)).

Pronominal clitics are thus minimal D categories that incorporate into  $\text{FIN}^0$ . Inversely,  $\phi$ -clitics are treated as non-D minimal categories which incorporate into  $v^0$ . We mark both such instances in the schema in (57) which is a generalised view of our syntactic account.

(57)



While recognising the C- and *v*-level layers of focal information structuring, *qua*  $\text{Foc}_{[C]}^0$  and  $\text{Foc}_{[v]}^0$  respectively in (57), it is true by theoretical extension and empirical factuality<sup>34</sup> that the nominal phase exhibit left peripheral projections dedicated to information structuring, viz.  $\text{Foc}_{[D]}^0$ .

$\text{TRANSFER}_1$  takes place within the nominal phase, which we take to be delimited by the D head.  $\text{TRANSFER}_2$  associates with *v* while  $\text{TRANSFER}_{\{3,4\}}$  are clausal phase points. The last and supraclausal phase boundary we motivated is  $\text{TRANSFER}_5$  which represents the J head and associated with the Frame complement containing the extended clause.

The allomorphy and allosemy of the two J and [ ] heads and the three FOC, TOP and FORCE heads, can also be related by movement, as we have proposed. In this regard, we follow Embick (2010) in assuming that null heads must undergo obligatory pruning before allomorphy may apply (cf. the realisation of J and [ ] heads in our earlier discussion).

Given the evidence on *wh*-pseudodoubling in (25) and (26), which we formalised in (27), we identified two *wh*-positions. Both *maḥḥan* and *kuwapi* are marked for their structural positions and postsyntactic realisation in (57).

This paper hopefully not only furthers the technical treatment of the Hittite grammar of the clause, but also obversely demonstrates how theoretical notions can, or should, be reconsidered by a language that would otherwise go unnoticed by theoretical synchronic syntacticians.

## HISTORICAL SOURCES AND CITING CONVENTIONS

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:

**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).

**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](http://www.hethport.uni-wuerzburg.de).

<sup>34</sup> See, among many others, Poletto (2006) and Giusti (2002) along with independent evidence cited therein.

**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.

**IBoT** *Istanbul arkeoloji müzelerinde bulunan Boğazköy tabletlerinden seçme metinler*, İstanbul, 1944–.

**KUB** *Keilschrifturkunden aus Boghazköi*, Berlin, 1921–.

**KBo** *Keilschrifttexte aus Boghazköi*, Leipzig / Berlin, 1916–.

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.

**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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