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### *Preverbs, Postpositions and Indefinite Pronouns in Hittite*

The paper deals with the syntax of preverbs, postpositions (including postpositional phrases) and existential quantifiers/ negative polarity items in Hittite within the Minimalist Program. Their *in-situ* and *ex-situ* positions are determined. The *in-situ* position of both PP and preverbs is that of the complement of VP whereas existential quantifiers/NPIs normally land by head movement in eQ, a dedicated existential quantifier projection which is located in the TP layer.

Key words: Hittite, syntax, postpositions, preverbs, existential quantifiers, negative polarity items.

#### Introduction

In the paper I will deal with the clause position of two groups of constituents in Hittite: (a) preverbs and postpositions; (b) existential quantifiers and negative polarity items. Despite much work on the topics [Tjerkstra 1999: 173; Luraghi 1990: 32, 35; Francia 2002; Salisbury 2005: 216; Huggard 2015], there are still problems to be solved. The work is couched in the Minimalist Program.

#### 1. PPs and preverbs

As is well-known, Hittite attests postpositional phrases, i.e. noun phrase in genitive or dative/locative<sup>1</sup> + postposition, e.g., *apēl katta* “to him” [Hoffner – Melchert 2008: 299] where *apēl* is gen.sg. form of the pronoun *apā-* “that” and *katta* is a postposition “with, to” governing *apēl*. PPs are normally immediately preverbal, just like place/time/manner adverbials [Salisbury 2005: 210-3]:

(1) NH/NS (CTH 378.II.A) KUB 14.8 obv. i 14-15, [Salisbury 2005: 212]  
*nu=šmaš* <sup>D</sup>IŠKUR <sup>URU</sup>Hatti mahhan [(išhiu)]l

1. See for the distribution [Brosch 2014: 82].

CONN=them Storm-god Hatti how treaty.ACC.SG.N  
 ANA LÚ<sup>MEŠ</sup> URU<sup>H</sup>Hatti menahhanda iya-t  
 to men Hatti against make-3SG.PST  
 “How the Storm-god of Hatti made a treaty for them **with the men of Hatti**”.

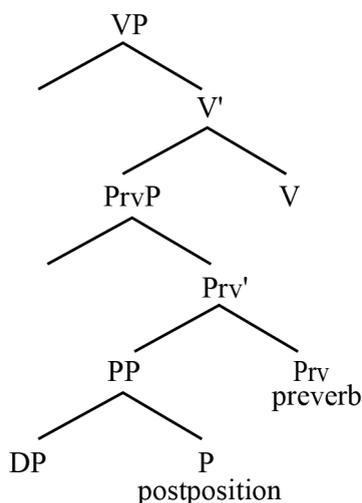
Preverbs<sup>2</sup> are also canonically in front of the verb [Tjerkstra 1999: 173; Luraghi 1990: 32, 35; Francia 2002; Salisbury 2005: 216; Brosch 2014]<sup>3</sup>.

(2) INH/NS (CTH 577) KBo 2.2 obv. i 45-46 [van den Hout 1998: 127; Goedegebuure 2014: 414]

(The fever that was established for His Majesty previously, will it be as long as he has not yet sat down in kingship? [...])

n=an=kan tapašša-š apiya kuiški anda wemiya-zi  
 CONN=him=LOC fever-NOM.SG.C then some-NOM.SG.C in find-3SG.PRS  
 “Will some fever befall him then?”.

This warrants a structure like (3):



2. Actually, the term ‘preverb’ here and elsewhere stands for preverbs and local adverbs, which are difficult to distinguish in a number of cases [Tjerkstra 1999; Luraghi 1990; Francia 2002; Salisbury 2005]. Cf. for a very narrow understanding of preverbs [Brosch 2014]. Postpositions and preverbs are always homonymous, e.g. *šēr* is both a preverb ‘up’ and a postposition ‘for’. In a number of cases it is virtually impossible to tease them apart. The situation is cross-linguistically common, see [Svenonius 2004: 213], but in Hittite the lexical identity is total [Hoffner – Melchert 2008: 299], as different, e.g., from English. So for Hittite the distinction between *\*The boat drifted from* and *The boat drifted over* [Svenonius 2010] does not exist.

3. The few constituents that can interfere are manner adverbs, negation markers and NPIs in Middle and New Hittite, see below for detail. In Old Hittite and much less frequently in later periods adverbials that interfered were much more varied and also included locative expressions (DPs in the directive/dative-locative case) [Brosch 2014: 80, 82-3].

Thus the position of both PPs and preverbs is similar to that of adverbs/adverbials in linear terms<sup>4</sup> and is lower than the *in-situ* positions of verbal arguments [Salisbury 2005; Huggard 2015]. For the construal of PrvP I basically follow [Koopman 2000; Svenonius 2004]<sup>5</sup>. PPs and preverbs frequently cooccur in the clause, the order is always PP – preverb.

## 2. Non-canonical position of PPs and PrvPs

Both preverbs and postpositions occur outside this canonical preverbal position.

### 2.1. Postposition Stranding

In a number of cases only DP scrambles out of PP stranding the postposition *in situ*<sup>6</sup>. DPs scramble out of PP to information structure related projections within CP, stranding the postposition, or to the middle field positions, as per [Huggard 2015], just like the majority of verbal arguments gets out of vP in Hittite, see below. Any kind of DP can scramble stranding the postposition in its *in-situ* preverbal position<sup>7</sup>:

(4) MH/NS (CTH 264.A) KUB 13.4 obv. ii 19, [Miller 2013: 256-7]

*n=ašta*            *kuedani*            *ḫāl-i*            *waštul*  
 CONN=LOC    which.LOC.SG    watch-LOC.SG    offense.NOM.SG.N  
*anda* *kīš-a*  
 in    occur-3SG.PRS

“In which watch an offense occurs, ...”;

(5) NH/NS (CTH 62.II.A) KBo 5.9+ obv. ii 46'-48', [del Monte 1986: 168-9; Beckman 1996: 57]

*mān=kan tuk*            *ANA*    *<sup>m</sup>TUPPI-<sup>D</sup>U-up*    *idālauwa*            *AWATE<sup>MEŠ</sup>*  
 if=LOC    you.DAT.SG    to    Tuppi-Tessup    evil.ACC.PL.N    words  
*kuiški*            *ANA*    LUGAL    *našma*    *ANA*    KUR    <sup>URU</sup>*Hatti*    *peran*  
 some.NOM.SG.C    to    king    or    to    land    Hatti    before  
*widai-zzi*  
 bring-3SG.PRS

“If someone should bring up before you, Tuppi-Tessup, evil matters against the King or against Hatti, ...”;

4. Even though manner adverbs and OH locatival adverbials are located still lower in the tree.

5. See similarly for construals of syntactically analogous constituents like Germanic particles [Zeller 2001, 2003] or Slavic lexical prefixes [Svenonius 2004]. It is also possible to construe PPs as adjoining directly to the V, but cases where both PP and preverb move are better captured by the account above. In any case, nothing in what follows hinges on the either construal.

6. See [Abels 2003] in general minimalist terms, [Salisbury 2005] for the descriptive Hittite facts.

7. See [Salisbury 2005: 226] for more examples.

## 2.2. PP scrambling

PPs can occur in positions other than the immediately preverbal one, see [Salisbury 2005]. In line with general treatment of PP vs P movement [Vicente 2007], the majority of what looks like displaced PPs can be assessed as base generated in higher positions, as in

(6) NH/NS (CTH 584.5) KUB 48.118 10-11, [de Roos 2007: 123-4]

*namma=wa=kan* <sup>NA4</sup>*paddaš* *anda* <sup>DUG</sup>*hūpuwāi*

further=QUOT=LOC p.-stones.LOC.PL on jar

*duwarna* GAR-*ri*

broken<sup>?</sup> lie-3SG.MED

“Further (there) lay **on the *patta* stones** (a) broken<sup>?</sup> jar(s)”<sup>8</sup>.

Still, it appears that there are cases which can only be assessed as scrambling of all the PP:

(7) NH/NS (CTH 81.A) KUB 1.1+ rev. iv 72, [Salisbury 2005: 230]

(The property of Armatarhunta which I gave to her and whatever settlements were Armatarhunta’s,)

*n=an=kan* *hūmantiya=pat* **EGIR-an** <sup>NA4</sup>ZI.KIN

CONN=her=LOC every=EMPH behind pillar

[*t*]ittanu-*šk-anzi*

set-IMPf-3PL.PRS

“They set her up as a boundary marker/cult monument **behind all of them** (the cities)”.

It follows from Salisbury’s translation that here all the PP is focused, hosting the particle *-pat*, and is fronted as a PP. Other understandings of the context differ markedly: “behind **every single cult monument** they will erect her (statue) (and they will pour a vessel)” [van den Hout 2003: 204]; “da wird man *sie* jeweils an jedem einzelnem <Ort> hinter der Massebe aufstellen und man wird den Pithos füllen” [Otten 1981: 29]. Still, Salisbury’s interpretation produces the most regular resumption of the relative clause and should probably be preferred.

Thus it appears that Hittite attests both DP scrambling with P stranding and PP scrambling.

## 2.3. P Head Movement

In some rare cases the postposition moves by head movement:

(8) MH/MS (CTH 147) KUB 14.1+ obv. 59, [CHD L-N: 140<sup>9</sup>]

8. Cf. [CHD P: 237]. See [Salisbury 2005: 230] for more examples.

9. Differently [Beckman 1996: 147; Salisbury 2005: 233; Beckman et al. 2011: 81].



The movement of preverbs is very sporadic in positive sentences whereas it is virtually obligatory in negative ones<sup>12</sup>. If the verbal arguments in such sentences have unmarked information structure status, (9) does not capture the data, because it would produce (-) *preverb – subject – object – negation marker* word orders<sup>13</sup> as unmarked information structure DPs would target AgrSP and AgrOP<sup>14</sup> and land to the right of the preverb, which is not attested. If subject and object are unmarked as for their information structure, only *subject – object – preverb – negation marker* word orders are attested:

(11) MH/MS (CTH 131) KUB 8.81+ rev. iii 6, cf. Beckman 1996: 21; CHD P: 124  
*mān=wa=kan BEL<=ŠU>=ma šer UL šarnik-zi*  
 if=QUOT=LOC lord<=his>=but up NEG compensate-3SG.PRS  
 “If <his> master, however, does not pay compensation, ...”.

Thus (9) cannot be completely right and negative sentences require a different linearization of preverbs which move *ex situ* to a lower position, adjoining to TP or even vP:

(12) [ForceP [TopP [AgrSP [AgrOP [FocP<sup>15</sup> [TP [NegP [vP [VP]]]]]]]]]]

In the light of (12) ex. like (10) can only be interpreted as verbal arguments (direct object in (10)) being *in situ*, within vP. At first sight this appears to be a pretty uneconomical way of capturing Hittite data: in negative sentences all verbal arguments as well as preverbs are assumed to move past the negation marker without any particular conditioning whereas both verbal arguments and preverbs can stay *in situ* in positive sentences, although they do it with very different frequency: whereas preverbs virtually always stay *in situ*, verbal arguments predominantly move in positive sentences. In this light it is quite tempting to offer an alternative linearization by construing negation as occupying the righthward specifier. However, negation adjoining to the right will fail to produce the attested *negation – NPI* word order. Negation has to face left and the verbal arguments have to be generated and receive case in a position which is lower than the negation because Hittite NPI are always to the right

12. Only rarely are the preverb – or stranded postposition – *in situ* in negated sentences, see below.

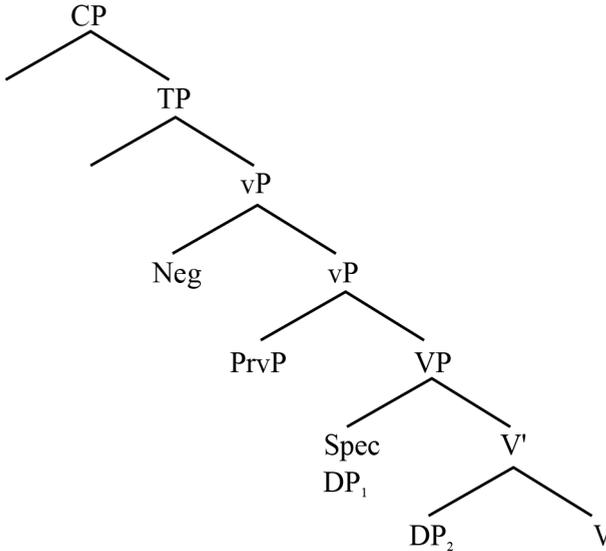
13. The word order is attested if preverbs are focused or topicalized.

14. One needs these two extra projections to account for the fact that Hittite verbal arguments seldom stay in their base-generated position within vP and normally scramble to some higher projections, both information structure related and not. In the latter case the account of [Huggard 2015: 27] (with subjects moving to Spec,AgrSP and objects moving to Spec,AgrOP) might be along the right track, although it must be borne in mind that Hittite subjects and objects receive their case within vP as is shown by the fact that the verbal arguments which are the lowest in the clause architecture, existential quantifiers/NPIs, are fully case-marked.

15. Hittite obviously provides a case for a very low focus projection, as contrastive focus is consistently preverbal [Goedegebuure 2014]. Low focus is often posited cross-linguistically, see, among others, [Belletti 2003; Brody, Szabolcsi 2003; Butler 2004; Jayaseelan 2006-8; Wolfe 2015].

of the negation marker and are fully case-marked. NPIs within PPs are similarly lower than the negation marker, which testifies that preverbs/postpositions have to be base generated lower than negation too. So it is inevitable to accept (12).

Now, how does one fit preverbs and PPs into (12)? They can adjoin to vP below argument positions, as is posited in (3), very low in the tree. Alternatively, as [Huggard 2015] thinks, they can adjoin quite high within vP above the positions argument are base generated in, as is shown in (13):



### 3. Existential Quantifiers/NPIs

To choose between (12) or (13) one will need to incorporate into the analysis the data concerning two sets of Hittite indefinite pronouns, namely existential quantifiers and negative polarity items. Both sets are phonologically identical and morphosyntactically close, i.e. *kuiški* “some/ anyone”, *kuitki* “some/ anything”, *kuwapiki* “some/ anywhere, some/ any time”, productively derived from the inflected word-form of what is formally relative pronouns/subordinators/*wh*-words with the particle *-(k)ki/-(k)ka*. Thus *kui-* is relative pronoun/*wh*-word, *kuwapi* is subordinator “when/where”. The fact that the *kuiški* pronouns are derived not from the stem, but from the inflected wordform of the corresponding relative pronoun/*wh*-word is illustrated by the following forms: NOM.SG.C form of the relative pronoun/*wh*-word is *kui-š*, whereas NOM.SG.C of the *kuiški* type is *kui-š=ki*; GEN.SG form of the relative pronoun/*wh*-word is *kuel=ka*, whereas GEN.SG form of the *kuiški* type is *kuel=ka*; the DAT.SG form of the relative pronoun/*wh*-word is *kuedani*, whereas the DAT.SG form of the *kuiški* type is *kuedani=kki*.

The Hittite existential quantifiers/NPIs are known to behave differently from all other verbal arguments [Luraghi 1990, Sideltsev 2002, Goedegebuure 2014,

Sideltsev 2014, Huggard 2015, Luraghi to appear]. They stay lower and are very consistently preverbal, see for existential quantifiers:

(14) NH/OS (CTH 291.I.b.A) KBo 6.3+ obv. i 1 (§ 1), [Hoffner 1997: 17]

[*takku* *LÚ-an* *n**ašma* *MUNUS-an* *š[ulla]nm[-a]z*  
if man-ACC.SG. or woman-ACC.SG.C quarrel-ABL

*kuiški* *kuen-zi*  
somebody.NOM.SG.C kill-3SG.PRS

“If **anyone** kills [a man] or a woman in a [quarr]el, ...”.

Here the fact that the subject is instantiated by the existential quantifier brings about non-canonical OSV word order as different from the canonical SOV Hittite word order. If the subject was instantiated by a DP or NP, both indefinite/non-specific and definite/specific, it would conform to the canonical SOV word order, as in the following example:

(15) MH/NS (CTH 258.2) KUB 13.7 obv. i 1, [Miller 2013: 140-1]

[*mān=ma=ašta* *ant**uwahḫa-š* *LUGAL-u-n* *\*IŠTU\** *DI\*NI\**  
if=but=LOC man-NOM.SG.C king-ACC.SG.C from case

*karap-[zi]*  
raise-3SG.PRS

“[If, however], a [**m**]an *imped*[es] the king from (properly deciding) a law case”.

3.1. So the Hittite system is as follows: a verbal argument instantiated by an existential quantifier/NPI is closer to the verb than a verbal argument instantiated with an NP or a DP, independently of its syntactic role or information status. Thus it is lower in the clause architecture than any other verbal argument. This is particularly obvious in case of NPIs.

NPIs are lower than negation markers in the clause architecture because NPIs are always to the right of negation markers<sup>16</sup>:

(16) NH/NS (CTH 569.II.3.B) KUB 50.6+ obv. i 15'-16' [van den Hout 1998: 196-7; Salisbury 2005: 218]

*namma=za* *GIDIM* *damēdani* *memin-i* *šer* *UL*  
then=REFL deceased other.DAT.SG matter-DAT.SG up NEG

*kuedanikki* *TUKU.TUKU-wanza*  
something.DAT.SG angry.NOM.SG.C

“But furthermore, o deceased, because of **some** other matter you (are) **not** angry, ...”.

16. In two or three cases when existential quantifiers are to the left of negation, they occupy the second position in the clause [Sideltsev 2015; forthcoming].

This sets NPIs very clearly apart from all verbal arguments and adjuncts which are to the left of negation markers. The difference is very clearly seen in (16). In this case it is obvious that all verbal arguments/adjuncts scramble from their original position between the negation marker and the verb whereas NPIs can be construed as either staying *in situ* [Huggard 2015], or as occupying some dedicated projection low in the clause architecture.

Another distributional property which is potentially relevant to determine the structural position of NPIs/existential quantifiers is their position vis-à-vis preverbs/stranded postpositions. The statistically dominating linear position of existential quantifiers is in front (= to the left) of preverbs and stranded postpositions – they occur there in 80% of all cases<sup>17</sup>, as is seen in

(17)a NH/NS (CTH 291.III) KBo 6.4 obv. i 4 [Hoffner 1997: 19-20]  
 [takku=*kan* <sup>LÚ</sup>DAM.GÀR <sup>URU</sup>H]atti āššuw-aš *kuiški*  
 if=LOC merchant Hittite goods-LOC.PL somebody.NOM.SG.C  
*anda kuen-zi*  
 in kill-3SG.PRS  
 “[If] **anyone** kills a Hittite [merchant] in the midst of his goods, ...”.

(17)b INH/NS (CTH 573) KUB 16.46 obv. i 4’ [van den Hout 1998: 150-1]  
*kēdaš=kan* <sup>D</sup>Zawalliy[*aš*] **1-aš** *kuiški*  
 this.LOC.PL=LOC Z. LOC.SG.C 1-NOM.SG.C someone-NOM.SG.C  
<sup>D</sup>Zawa[*lli(-)...?*] anda TUKU.TUKU-*wanza*  
 Z.[-NOM.SG.C] in angry.NOM.SG.C  
 “Among these Zawalli-deities (is there) **an individual Zawa[lli-deity ...?**] angry”.

(17)c MH/MS (CTH 147) KUB 14.1+ obv. 37 [Beckman 1996: 146]  
*naššu=wa=ta* *k[ūrur]-aš* *memian* *kuiški*  
 or=QUOT=you hostility-GEN.SG matter.ACC.SG someone.NOM.SG.C  
*piran memai*  
 before speak.3SG.PRS  
 “Whether **someone** speaks of a matter of hostility before you, ...”.

The statistically dominating linear position of NPIs is different – it is to the *right* of (= after) preverbs and postpositions, as is seen in (16) above. Still it is likely that NPIs and existential quantifiers target the same position, even in the cases where their distribution is different. This seems to be the assumption, made by any other recent analysis of the Hittite syntax [e.g. Huggard 2015].

Still, by itself the linear distribution says nothing about the structural position existential quantifiers/NPIs are generated in. They can be generated lower than the

17. Cf. wrongly Brosch 2014: 84; Huggard 2015.

preverb/postposition and stay there in negative sentences whereas in positive ones – in the dominating number of cases – they move to the position higher than preverbs/postpositions, in conformity with (13). Alternatively, they can be generated in a position higher than the position preverbs/postpositions are generated in, as is suggested by (3) and (12). Then preverbs/postpositions move past them to a higher position. They do so only occasionally in positive sentences and very regularly in negative ones. The regularity of preverb/PP movement in the latter case vs rarity in the former can be tied in with the virtually obligatory scrambling of verbal arguments and adjuncts past negation marker to a higher position.

3.2. In the subsection I will attempt to set out the evidence favoring either (3, 12) or (13). I believe there are two pieces of evidence relevant to make the choice. The examples attest rare clause structure and thus can be seen as preserving the original clause structure as different from common and statistically dominating examples above.

The first piece of data attests preverb/postposition *in situ*, and it shows that the position is lower than that of the NPI<sup>18</sup>:

(18) NH/NS (CTH 81.A) KUB 1.1(+) obv. i 51-54 (§4) [Otten 1981: 8-9; van den Hout 2003: 200]

1. *nu=mu* DINGIR<sup>LUM</sup> GASAN=YA :*kuwayam-i* *mehun-i*  
 CONN=me god Lady=My fearful-LOC.SG time-LOC.SG  
**UL** *kuwapikki* *šer* *tiya-t*  
 NEG ever over pass-3SG.PST
2. *ANA* <sup>LÚ</sup>*KÚR=mu* *piran* *katta* **UL** *kuwapikki* *tarna-š*  
 to enemy=me before down NEG ever let-2SG.PST
3. *UL=ma=mu* *ANA* *EN* *DINI=YA* <sup>LÚ.MEŠ</sup>*aršanatallaš*  
 NEG=but=me to lord case=my envier.DAT.PL  
*kuwapikki* *piran* *katta* *tarna-š*  
 ever before down let-2SG.PST

“(1) The goddess, My Lady, **never** passed me over in time of fear, (2) she **never** let me down before the enemy, (3) **nor** did she **ever** let me down before my opponent in court (or) before my enviers”.

My analysis takes it for granted that if the postposition is in front of the existential quantifier/NPI and the verb, only clauses like (18) cl. 2 are attested, i.e. the clauses where the complement of the postposition is an enclitic pronoun, not an accented DP whose movement would strand a postposition. So I believe the postposition in cl. 2 is not stranded, but rather moves there from the position between the

18. In the analysis of preverbs vis-à-vis negation I follow [Brosch 2014: 97-8]. Cf. [Salisbury 2005: 216-236].

NPI and the verb. On the contrary, the postposition in cl. 3 which is between the NPI and the verb *is* stranded *in situ* under the movement of the accented DP *ANA EN DINI=YA* <sup>LÚ.MEŠ</sup>*aršanatallaš* “my opponent in court (or) before my enviers”. Examples like (18) also show another thing – the information structure status of NPIs between the postposition and the verb and in front of postposition is identical, thus there is totally no reason to try to explain the position of the NPI by some kind of information structure driven movement. Only the negation marker in cl. 3 moves to Spec,ForceP due to the ‘negative concord’ (“neither ... nor”), also marked by *-ma*. Naturally again, there is no way to show that the NPI is *in situ* or *ex situ* in any of the three clauses, but the example shows that the standard word order ***preverb/postposition*** – *negation marker* – *NPI* is derived from rare word order *negation marker* – *NPI* – ***preverb/postposition*** in which postpositions are demonstrably *in situ*. Thus we arrive at the originally identical placement of existential quantifiers and NPIs in relation to preverbs/postpositions.

The third piece of evidence comes from the rare cases where existential quantifiers are not immediately in front of the verb or preverb because other verbal arguments ‘interfere’. Still, even in these cases, existential quantifiers behave differently from the rest of verbal arguments in that they still tend to appear lower in the clause architecture than the majority of verbal arguments

(19) MH/NS (CTH 260.1) KUB 31.44+ obv. ii 6-7 [Miller 2013: 288-9]

*našma=kan* <sup>LÚ</sup>*ara-š* <sup>LÚ</sup>*ar-i* *kuiški*  
 or=LOC colleague-NOM.SG.C colleague-DAT.SG some.NOM.SG.C

*kurur-aš* *mem[(ia)]n* *peran* *pēhute-zzi*  
 enemy-GEN.SG word.ACC.SG.C before bring-3SG.PRS

“Or (if) **some colleague** expresses a hostile re[(ma)]rk against (another) colleague, ...”.

Here the fact that the postposition *peran* “before” is *in situ* is supported by the fact that it is stranded under DP (<sup>LÚ</sup>*ari*) movement: it is generally believed that movement is normally illicit out of a moved constituent, thus stranded postposition strongly favors the construal of the postposition being *in situ*. Part of the subject instantiated by an existential quantifier “someone” is lower than part of PP (<sup>LÚ</sup>*ari*) which is demonstrably *ex situ* as it scrambles stranding the postposition. Thus the position of the existential quantifier<sup>19</sup> is, as expected, lower than other verbal arguments and adjuncts. However, the subject existential quantifier is higher than the direct object *kururaš mem[(ia)]n* “a hostile word”.

Thus a kind of three tiered structure is evident: the *standard* position of verbal arguments quite high in the clause, then the standard position of existential quantifiers/NPIs lower than the rest of verbal arguments and then the *rare* position of verbal arguments which is lower than the position of existential quantifiers. There fol-

19. See for the split below.

low preverbs/postpositions (normally stranded) and, finally, verbs. To reconcile such three-tier cases with the statistically dominating rest of the data where only two tiers are attested – high verbal arguments and low existential quantifiers – it is inevitable to conclude that the verbal arguments between the existential quantifiers and the verb/preverb are *in situ*. The conclusion is further supported by the data where the DPs between the quantifier and the preverb are stranded *in situ* under scrambling of part of DP, see below (21a).

Summing up, I believe (18-19) show that it is (3, 12) which capture the data more adequately.

3.3. Going back to the main line of argument, it is important to observe that if one accepts (3, 12) as the basic construal, the option of the *in-situ* position of existential quantifiers is paradoxically still available, as per [Huggard 2015]<sup>20</sup>, even though he proposes a very different basic clause architecture. However, under the *in-situ* analysis of existential quantifiers one will have to assume that only existential quantifiers stay *in situ* whereas the absolute majority of all other verbal arguments raise out of vP. Indefinite or non-specific NPs/DPs which do not include an existential quantifier are not consistently preverbal, see (15) above [for more detail Sideltsev, forth.]. Thus Hittite existential quantifiers or NPs containing existential quantifiers cannot be assessed along the same lines as, e.g., Turkish indefinite non-specific NPs which stay lower in the clause structure than DPs<sup>21</sup>. Consequently, the account of existential closure at the vP level in Huggard 2015 does not hold for Hittite. Thus the feature that sets existential quantifiers apart from all the rest of verbal arguments is rather quantification. Strangely enough, it is not any kind of quantification, but rather existential quantification. Other quantifiers, primarily universal quantifier *humant-* «all, every», behave just like all the rest of NPs and DPs. The asymmetry is

20. If, despite the arguments set out above, one still accepts (13) as the basic construal, the account will run as follows. Exx. (17) share one thing in common – the existential quantifier is technically not immediately in front of the verb, it is in front of the preverb, but it preserves all the distributional properties it had in front of the verb. The main of them is that it is the closest to the verb. If it instantiates the subject, it brings about the OSV word order. Thus to fit positive sentences like (17) into (13), one will need to capture the fact that the existential quantifier systematically behaves differently from other verbal arguments even when it is in front of preverb/stranded postposition. It implies positing a site for the quantifier which is higher than the position preverbs/postpositions occupy but lower than the position the direct object occupies in the information structure unmarked position (AgrOP [Huggard 2015]). This latter requirement follows from the fact that the position existential quantifiers occupy in (17) cannot be equated with AgrSP or AgrOP as existential quantifiers are always lower than any other verbal arguments, irrespective of the syntactic role of existential quantifiers or of other verbal arguments, thus they have to occupy a different structural position. Thus, if we accept (13), with the base-generated position of preverbs/PPs higher than the base-generated position of existential quantifiers, we will inevitably have to posit a dedicated projection for quantifiers to account for cases like (17).

21. The system is well attested cross-linguistically [Kim 1988; Diesing 1992; Vikner 1995; Massam 2001; É Kiss 2004; Kumar 2006; Muravyova 2008; Kahnemuyipour, Megerdooomian 2011; Dayal 2011; Gračanin-Yüksek, İşsever 2011; Serdobolskaya 2014 and many others].

paralleled in other languages by, e.g., quantifier float which is attested for only part of quantifiers [Bobaljik 2003; Bošković 2004, with further references]. Naturally, one might argue that even in this light an account along the lines of *wh*-in-situ might be applicable to Hittite existential quantifiers. It has been argued in the literature that a *wh*-operator which moves to Spec,CP unselectively binds all *wh*-variables in its scope [Cable 2007; İşsever 2008; Cheng 2009; Slade 2011, with lit.]. Along the same lines, it might be suggested that in Hittite an existential operator in Spec,CP binds all variables in its scope, thus making unnecessary any overt movement of existential quantifiers. All other verbal arguments will scramble.

However, to explain that NPIs behave differently from all other verbal arguments and adjuncts vis-à-vis negation markers – they are the only verbal arguments which stay lower than negations – is only possible in a principled way by positing that first they extract out of noun phrases including PPs. The construal provides a mechanism by which the PP regular split under negation is accounted for: first quantifiers extract out of PPs targeting a dedicated position, and only then the remnant QP/PP void of the quantifier scrambles past negation marker, to either information structure related Spec,TopP or Spec,FocP or to non-information structure related Spec,AgrSP or Spec,AgrOP, just like any DP/PP does in Hittite. This works particularly clearly in PPs under negation, as in (16). The negative DP in (16) consists of the PP *damēdani memini šer* “because of other matter” and the negative polarity item *kuedanikki* “any” with the original word order *damēdani memini kuedanikki šer* or *damēdani kuedanikki memini šer*. However, under the scope of negation the PP is split: the NPI remains to the right of negation whereas the rest of the PP scrambles to a higher projection to the left of it. The most economical account is that first the NPI extracts out of PP and then the remnant PP scrambles. The split is not limited to clauses containing postpositions, it is attested regularly with DPs:

(20)a NH/NS (CTH 562.1) KUB 22.70 rev. 28-9 [Ünal 1978: 89-90; Goedegebuure 2014: 183]

*nu mān DINGIR-LUM apāddan šer šarnikzel*  
 CONN if god therefore up compensation.ACC.SG.N  
*INA É.GAL-LIM UL kuitki šan(a)ḫ-ta*  
 In palace NEG something.ACC.SG.N see-3SG.PST  
 “If the deity does not seek **any** fine in the palace at all because of that, ...”;

(20)b NH/NS (CTH 584) KUB 15.1+ obv. ii 32-33 [de Roos 2007: 92, 100]

*nu <sup>D</sup>UTU-Š=I HUL-uwanza uddananza anda UL*  
 CONN Majesty=My evil.NOM.SG.C word.NOM.SG.C in NEG  
*kuiški KAR-zi*  
 some.NOM.SG.C find-3SG.PRS  
 “And not **a single evil word** shall reach His Majesty”.

3.4. Ex. (19) above which was assessed as attesting the *in-situ* direct object lower than the existential quantifier is compatible with the existential quantifier also being *in situ* as the existential quantifier is subject and the *in-situ* DP is object, so the order

of subject and object in relation to each other is canonical SO. Still, there are examples, admittedly rare and sporadic, which might be argued to attest DPs *in situ* and the position of the existential quantifier which cannot be canonical and thus is likely to be *ex situ*, as in

(21)a NH/NS (CTH 577) KUB 5.24+ obv. ii 13-14 [van den Hout 1995: 256-7; Mouton 2007: 199-200]

*kī=wa* <sup>D</sup>UTU <sup>URU</sup>PÚ-*na* ŠA <sup>m</sup>Kur *kuwatqa*  
 this=QUOT sungodddess Arinna of Kur somehow  
*uttar* EGIR-*pa* SUD-*at*  
 matter.ACC.SG.N back draw-3SG.PST

“The Sungoddess of Arinna wanted to prolong **this matter of Kur** somehow”.

In (21a) the *kuiški*-pronoun is placed as if it was part of the NP ŠA <sup>m</sup>Kur *uttar*, which it is not. The context also demonstrates fronting of part of NP *kī* ŠA <sup>m</sup>Kur *uttar*. Instead of all the NP only *kī* is fronted. Canonical word order is attested in the lexically identical context from the same text:

(21)b NH/NS (CTH 577) KUB 5.24+ obv. ii 19-20

*mān=ma* DINGIR-LUM *kēl* ŠA  
 if=but god this.GEN.SG of  
<sup>m</sup>Kur *uttar* [E]GIR-*pa* UL *kuitki* SUD-*at*  
 Kur matter.ACC.SG.N back NEG somehow draw-3SG.PST

“But if the goddess did not **at all** want to prolong the matter of this Kur, ...”.

The confrontation of (21a) and (21b) clearly shows that the *kuiški*-pronoun in (21b) may either be *in situ* or *ex situ* whereas the *kuiški*-pronoun in (21a) is obviously *ex situ*. I suppose the difference between the two contexts should be explained as follows. In (21a) part of the DP *uttar* is *in situ* whereas its two determiners raise to different positions<sup>22</sup>, Spec,TopP and Spec,ForceP. In (21b) all the object DP raises to what might be provisionally termed as Spec, AgrOP. As for the preverb EGIR-*pa* “back”, in (21a) it is *in situ*, lower than the DP *in situ*, whereas in (21b) it is *ex situ*.

The crucial fact is that in (21a) the manner adverb *kuwatqa* is in front of the part of direct object (*uttar* «matter») whereas the normal position of manner adverbs is lower than any verbal arguments. Manner adverbs are not immediately preverbal only if they are contrastively focused or topicalized, which is not the case in (21b). Thus the manner adverb has to be *ex situ* and its position can be accounted for by the fact that it is a quantifier. As a quantifier, and differently from other manner adverbs which are not quantifiers, it moves to the projection which must be a dedicated existential quantifier projection (eQP)<sup>23</sup>, as shown in (22) in the appendix).

22. Attesting NP split, see below.

23. I suppose that quantifiers are heads of quantifier phrases and the DPs are their complements.

## 4. eQP

Now I get back to (16). At first sight the NPI produces the impression of being floated and adjoining to the VP<sup>24</sup>. However, both Hittite NPIs and existential quantifiers which constitute one morphosyntactic class in Hittite are only superficially similar to floating quantifiers, for which see vast literature in Bobaljik 2003 and Bošković 2004: in (17a) and (17c) there is no DP to float the quantifier as the quantifier is bare. Thus the quantifier float explanation does not hold for Hittite. Instead I propose that existential quantifiers/NPIs target the dedicated eQP projection and thus extract out of PP: they raise by head movement to eQ. Then the remnant PP scrambles higher, to Spec,TopP/FocP/ForceP, as in (23) or to not information structure related projections along the lines of Huggard 2015, just as described above. Above I assessed the cases which involved NPIs. Now I will show that the identical mechanism is attested for existential quantifiers as well:

(23) MH/NS (252.A) KUB 13.8 obv. 11-12 [Miller 2013: 210-1]  
*mān* *šA* *É.NA<sub>4</sub>=ma* *ḫinqan-aš* *waštul*  
 if of stone.house=but death-GEN.SG.C crime.ACC.SG.N  
*kuiški* *waštai*  
 anyone.NOM.SG.C sin.3SG.PRS

“If, however, **anyone** from the royal funerary structure commits a capital crime, ...”.

In (23) the remnant QP void of the quantifier and containing only DP scrambles to Spec,ForceP whereas the existential quantifier raises to eQ. The position of eQP is within TP below negation. It can be linearized as follows:

(24) [ForceP [TopP [AgrSP [AgrOP [FocP [NegP [TP [eQP [vP [VP]]]]]]]]]]

However, existential quantifiers in the preverbal position are not always the result of head movement. The quantifier phrase is often, but not necessarily, split in Hittite. In a number of cases the quantifier phrase is not split and all of it is immediately preverbal. In such cases it is inevitable to conclude that all the quantifier phrase raises to Spec,eQP.

(25) NH/NS (CTH 584) KUB 15.1+ obv. ii 6-8 [de Roos 2007: 91, 99; Mouton 2007: 261-3]  
*šA* *Ù=kan* *GIM-an* *MUNUS.LUGAL* *INA* *URU* *Iyamma*  
 inside dream=LOC when queen in Iyamma  
*Étarnuw-i* *EGIR-an* *LÚ<sup>MEŠ</sup>* *GURUŠ* *kuiššqa*  
 bathhouse-LOC.SG behind men young some.NOM.PL.C

24. Following the tradition going back to Kayne 1975 that floating quantifiers move to adverbial positions.

*ḥatkiššanu-šk-ir*

oppress-IMPF-3PL.PST

“When in a dream **some young men** behind/at the back of the bathhouse in Iyamma (intended to) oppress the queen”.

Thus Q head movement to the head of the eQP is equivalent to the quantifier phrase raising to the specifier of eQP.

## 5. Alternative Accounts?

If one does not account for exx. like (16) by first extracting Q out of PP, whose complement QP is, and then by remnant movement of PP, the data above can be understood in two ways:

(a) as DP and P moving out of PP past the negation marker independently of each other. This might be supported by the idea of [Brosch 2014: 402-4] that originally DP<sub>DAT/LOC</sub> + postposition was always local adverb + DP<sub>DAT/LOC</sub>; whereas DP<sub>GEN</sub> + postposition was the only original adposition type. Whereas for NH period which (18) was composed in the original difference was obviously lost and the DP<sub>DAT/LOC</sub> + local adverb obviously functioned in a number of cases as DP<sub>DAT/LOC</sub> + postposition semantically, it might be the case that purely syntactically, it still behaved not as one constituent PP, but as two constituents (a DP and a local adverb). The analysis cannot be completely ruled out, still there is no independent support for the behavior of two parts of semantic PP as different constituents; already in Middle Hittite DP<sub>DAT/LOC</sub> + local adverb normally functioned as DP<sub>DAT/LOC</sub> + postposition [Brosch 2014: 404], thus I hold it to be less likely than the account offered above;

(b) as the QP split with part of QP subextraction; analogous DP splits are attested in Hittite, albeit extremely rarely [two examples in Sideltssev – Molina 2015; Goedegebuure 2013]. However, this seemingly alternative explanation at closer look forms part of my explanation: DP subextractions are accounted for two processes – by moving first part of DP to the specifier of an information structure related functional projection and then by remnant movement of the DP [Bašić 2004]<sup>25</sup>. In this account, the DP splits and eQP splits would receive a unitary explanation with the only difference that information structure driven DP subextractions are sporadic whereas QP splits are fairly regular in positive sentences and obligatory in negative ones. The only problem in the account would concern not the QP split, but rather how to fit ex. (21a) into the subextraction mechanism sketched above. As different from all other subextractions, (21a) produces the impression of a constituent with unmarked information structure status staying *in situ* with the rest of the DP moved to an information structure related projection in the left periphery.

25. For the information structure see also Predolac 2010. Cf. Bošković 2004a.

## 6. Summary.

In the paper I provided a uniform formal analysis of Hittite preverbs, postpositions and postpositional phrases within the minimalist program. Following cross-linguistic research, I proposed that preverbs and postpositions canonically occupy a very low position in the clause architecture adjoining to V.

I also showed that the syntax of the Hittite clause can be to a considerable extent described by two processes: **(a)** DPs' scrambling to the specifiers of the information structure related projections (TopP, FocP and ForceP) or, in case of unmarked information structure, to the lower positions as suggested by Huggard [2015]. The scrambling is very consistent, but not obligatory; **(b)** existential quantifiers obligatory raising by head movement to eQ.

In case of a PP, the two processes interact as follows: all the PP can scramble to Spec,FocP/TopP or only the DP can be extracted out of PP to Spec,TopP/FocP whereas the postposition is stranded *in situ*. Head movement of P is also attested, in this case the DP remains *in situ*. The scenario is analogous in case of QPs where both eQ head movement to the head of eQP in the low TP layer with the subsequent phrasal movement of DP out of eQP as well as entire QP phrasal movement are attested.

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**Appendix**  
**(22) Structure of sentence (21a)**

