Clitic Order in Hittite

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UCLA IE Conference
October 29, 2011
Introduction

Hittite “2nd position” clitics are problematic in terms of

(i) Their order in the sentence.
   *In what sense are they in “2nd position”?*

(ii) Their order with respect to one another.
   *Dat/acc clitics precede and follow nom/acc clitics.*

(iii) Their relation to positions within the clause.
   *Do pronominal clitic come from lower in the clause?*
We analyze clitics as heads with no specifier positions; they sit between the conjunction and the clause (TP).

Hittite has no CP, we claim, so clitics are \textit{clause}-initial.

“\textit{2nd Position}”

We analyze clitics as heads with no specifier positions; they sit between the conjunction and the clause (TP).

Hittite has no CP, we claim, so clitics are \textit{clause}-initial.

“\textit{2nd position}” is a fiction. (Agbayni & Golston 2010a)
If there is no clausal conjunction, or the conjunction is itself a clitic, non-clitic material is fronted for support.

This movement is *phonological*, not syntactic. (Agbayani & Golston 2010b)

(Cases like this caused Wackernagel to invent “2\textsuperscript{nd} position”.)
We think the movement is phonological because it is blind to syntactic conditions like the *Coordinate Structure Constraint*, which bans movement (out) of a conjunct:

\[
\text{nepis} = wa = \text{kan} \quad \text{daganzipas} \quad \text{kwedani} \quad \text{ser} \quad \text{wedanza}
\]

\[
\text{heaven} = \text{quot} = \text{loc} \quad \text{earth} \quad \text{whom} \quad \text{upon} \quad \text{built}
\]

‘upon whom heaven and earth are built’

(*KUB 33 113 29; Güterbock 1952, 27*)
ishenius = *smas = kán*  

**UMBIN**<sup>MES</sup> = *ya*  

daan  

eesdu  

hair = *them = loc*  
nails = *and*  
taken be  

‘Let their hair and nails have been cut’  

(*KUB 13.4 i 15-16; from Garrett 1996*)

zik = *za = kán*  

ammuqq = *a 1-edani*  
am-a-ni hassantes  

you = *refl = loc*  
I = *and*  
a-woman from born  

‘Were you and I born of a woman?’  

(*KUB XXIII 102 I 14f.*)
More evidence that the movement is phonological: it is blind to the *Left Branch Condition*, which bans movement of the left branch of a constituent:

\[
\text{apē} = \text{ya} \quad \text{uddar} \quad \text{QATAMMA} \quad \text{lagāru} \\
\text{these} = \text{and} \quad \text{words also} \quad \text{heed} \\
\text{‘And let me also heed these words.’} \\
(KBo II 3 III 21 f.)
\]
kārūliyas = a = kān siunas istarna Istanus sarkus former = and = prt gods among Istanus strong ‘You are strong among the former gods, Istanus.’ (KUB XXXI 127 I 27-28, Gebet an den Sonnengott)

kē = ya = kan É DINGIRLIM ukturi QATAMMA aššu ešdu these = and = prt house gods strong also good be ‘And these god-houses should be strong and good’ (KBo IV 1 I 43 f.)
**Clitic Order**

<table>
<thead>
<tr>
<th>Host</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accented Word (+ -a/-ya)</td>
<td>-wa(r)</td>
<td>-naš</td>
<td>-a- (e.g.,</td>
<td>-mu</td>
<td>-ža</td>
<td>-an</td>
</tr>
<tr>
<td>Accented Word (+ -a/-ma)</td>
<td>-šmaš</td>
<td></td>
<td>-aš, -an,</td>
<td>-ta l-du</td>
<td></td>
<td></td>
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<tr>
<td>nu</td>
<td></td>
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<td>-at, -e, -uš</td>
<td>-še/i</td>
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<td>šu</td>
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<td>ta</td>
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</table>

(Hoffner & Melchert 2008: 410)

*Most of the* left-right order of clitics can be reduced to scope:

Conjunctions have scope over everything that follows. Quotative particle (1) has scope over the rest of the clause. Pronominal clitics (2-4) have scope over VP. Reflexive (5) has scope over the V (internal arguments). Locatives (6) have scope over the V (roughly aspectual).
The slot-and-filler approach cannot be right.  
2 (dat/loc pl) and 4 (dat/loc sg) cannot occur,  
but are in different slots (Hoffner 1986:94-94)  
3 is sometimes repeated after 4/5 (HM 30.19)  
na-at-ši-at...  
na-an-za-an...

(Hoffner & Melchert 2008: 410)
So most of this can be modeled with clitics heads whose XPs lack specifiers.

Clitics surface in an uninterrupted string between the conjunction and the VP.

But this does not explain the relative order of the pronominal clitics in v:

Why $\text{aš} = \text{mu}$ rather than $\text{mu} = \text{aš}$?
Clitic Order: Pronominals

The relative order of pronouns makes no syntactic sense:

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<td>-ta/-du</td>
<td>-šela</td>
<td>-apa</td>
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<tr>
<td>nu</td>
<td></td>
<td></td>
<td>-at, -e, -uš)</td>
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<td></td>
<td>-ašta</td>
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<td>šu</td>
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<td>-kan</td>
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<td>ta</td>
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<td>-šan</td>
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- dat/acc pl
- dat pl
- nom
- acc
- dat/acc sg
- dat sg
But it does make phonological sense:

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<td>-an,</td>
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<td>-uš)</td>
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Pronominals are arranged to *optimize syllable structure*. 
{\textit{naš, šmaš}} give onsets to \{\textit{aš, an, at, e, uš}\}

[\textit{na.šuš}] has all of its onsets √
[\textit{uš.naš}] is missing an onset ∗

Hittite prefers words with onsets, so

C-final pronominals (2) precede V-initial pronominals (3)
3 > 4

\{aš, an, at, e, uš\} before \{mu, ta/du, še/i\} avoids hiatus

\[\text{mu.aš}\] has a coda and \textit{hiatus} \quad \ast
\[\text{aš.mu}\] has a coda, too, but no hiatus \checkmark

Hittite prefers words without hiatus, so
V-initial pronominals (3)
\quad precede V-final pronominals (4)
Clitic Order: reflexive and locatives

The late placement of the reflexive and ‘locative’ particles suggest that they are in fixed syntactic positions, lower than the pronominals.

We treat them as syntactic heads immediately dominating the VP proper.
Semantics of ‘reflexive’ =za and the ‘locative’ particles \{ = an, = asta, = apa, = kán, = sán\} is noncompositional and idiosyncratic.

nu = war =aš =mu = kan BAUS
and = QUO = he = me = ? died
‘And she said “He died on me”.’
(DS fr. 28Aiv5)
Again, ‘reflexive’ and ‘locatives’ don’t contribute a regular and predictable meaning to the verbal predicate.

\[
\text{maḫḫa} = \text{ma} = \text{za} = \text{kan} \quad \text{EZEN}_4 \quad \text{MU.KAM-\text{TI}} \quad \text{karpta}
\]

\text{when} = \text{but} = ? = ? \quad \text{festival annual} \quad \text{finished}

‘But when he had finished the annual festival’

(KBo 5.6 (DŠ frag. 28 A) i 40–42)

For this, Hoffner & Melchert provide tables...
**Lexical Use of -za(a)**

28.23. Some verbs exhibit significant differences in meaning, depending upon whether or not they are construed with -za (Hoffner 1973a: 521):

<table>
<thead>
<tr>
<th>Verb</th>
<th>without -za</th>
<th>with -za</th>
<th>Bibliography</th>
</tr>
</thead>
<tbody>
<tr>
<td>auš-</td>
<td>‘to see (physically)’</td>
<td>‘to see with insight, experience, understand, see in a dream’</td>
<td>Friedrich 1952: 38 sub auš-; Hoffner 1973a: 523; Boley 1993: 106–16</td>
</tr>
<tr>
<td>ēpp-</td>
<td>‘to seize, grasp’</td>
<td>‘to betake oneself to, take refuge in’ (with -za + -kan)</td>
<td>Hoffner 1970, 1973a</td>
</tr>
<tr>
<td>ēš-</td>
<td>‘to sit, remain seated’</td>
<td>‘to take a seat, sit down’</td>
<td>Goetze 1933b: 4–5; Neu 1968b: 27–28; Boley 1993: 73–76</td>
</tr>
<tr>
<td>huálzišš(a)-</td>
<td>‘to summon’</td>
<td>‘to call’ in the sense of ‘give a name to’</td>
<td></td>
</tr>
<tr>
<td>iya-</td>
<td>‘to do, make’</td>
<td>‘to celebrate (festivals), worship (gods)’</td>
<td>Boley 1993: 77–86</td>
</tr>
<tr>
<td>kiš-</td>
<td>‘to occur, happen’</td>
<td>‘to become (something)’</td>
<td>But see Neu 1968b: 97–98; and Hoffner 1973a: 522 n. 14; Boley 1993: 49–54</td>
</tr>
<tr>
<td>mold-</td>
<td>‘to recite, speak’</td>
<td>‘to take a vow’</td>
<td>Laroche 1964: 8–12; CHD mold-</td>
</tr>
<tr>
<td>ninink-</td>
<td>‘to move, stir up (something)’</td>
<td>‘to muster (troops)’</td>
<td>CHD sub ninink-4</td>
</tr>
<tr>
<td>peda-</td>
<td>‘to dispose of’</td>
<td>‘to carry off with/for oneself’</td>
<td></td>
</tr>
<tr>
<td>šak-</td>
<td>‘to be aware of, know’</td>
<td>‘to know, master (a skill), to recognize (authority)’</td>
<td></td>
</tr>
<tr>
<td>šakuwaye-</td>
<td>‘to look (toward something, with d.-l.)’</td>
<td>‘to see (something, with acc.)’</td>
<td>Hoffner 1973a</td>
</tr>
<tr>
<td>tarbh-</td>
<td>‘to have the upper hand, prevail, be able’</td>
<td>‘to conquer (someone)’</td>
<td></td>
</tr>
<tr>
<td>tepnu-</td>
<td>‘to demote, curtail’</td>
<td>‘to belittle (verbally)’</td>
<td>Hoffner 1977</td>
</tr>
</tbody>
</table>

‘Reflexive’ marks many things

(a) DO (*myself*)
(b) IO (*for myself*)
(c) POSS (*my own*)
(d) transitivity (adds an argument)
(e) change of state
(f) predicate nominal
(g) lexical idiosyncracies

(at left)
‘The particles -an, -apa, -ašta, -kan, and -šan belong to a single class of sentence particles which modify the action expressed by the main verb and its “adverbal” adjuncts.

The nature of that modification is disputed: some thinking that it marks primarily local relationships ... and another that it marks verbal aspect. These two viewpoints are not mutually exclusive ...’

(Hoffner & Melchert 2010:364-5)
We take the idiosyncratic and non-compositional semantics of $=za$ and the locative particles as evidence that these heads are very closely associated with the main verb.
Summary

Conjunctions are heads; clitics are clause-initial (Agbayani & Golston 2010b)

Quotative, Reflexive, and Locative clitics are as well

Pronominal Clitics are also heads (in vP), but

the syntax cannot order them;
so the phonology does,
maximizing onsets and minimizing hiatus.
Non-clitic material is VP-internal

Non-clitic arguments invariably follow the clitic string, unless they undergo phonological movement to the left.

Based on our proposed clause structure, non-clitic material is then VP-internal (with the exception of phonologically moved elements).
Non-clitic arguments are VP-internal

That non-clitic arguments sit quite low is evidence by the fact that they follow the reflexive and locative clitics.

mahhan = ma = za = kan  ezen₄  mu.kam-₄i  karpta
when = but = ? = ?  festivalannual  finished

‘But when he had finished the annual festival’

(KBo 5.6 (DŠ frag. 28 A) i 40–42)
Recap

(note: Acc clitics do not appear when subj cl is base generated in \( v \))

Hittite clause structure

\[
\text{ConjP} \\
\quad \text{Conj} \\
\quad \text{Nu/=ya} \\
\quad \text{QuoteP} \\
\quad \text{Quote} \\
\quad \text{=war} \\
\quad \text{vP} \\
\quad \text{ZP} \\
\quad \text{Z} \\
\quad \text{=za} \\
\quad \text{YP} \\
\quad \text{Y} \\
\quad \text{=kan} \\
\quad \text{VP} \\
\quad \text{=mu} [\text{full arguments/adjuncts...\( V \)]}
\]
Consequences

• Wh-elements stay in-situ (Huggard 2011)

• Clauses can only be conjoined → conjoined relative clauses (cf. Garrett 1990) and conditionals (cf. Hoffner & Melchert 2008)

• Topicalization / foregrounding movements of full XPs (Melchert 2003) occur VP-internally. → accounts for ‘internal topicalization’ to a position just below the clitic string
The complementary distribution of pronominal clitics and full arguments suggests that clitics move from positions downstairs.

We show here that this cannot be the case; pronominal clitics in Hittite must be base-generated high in the tree.

Whence clitics?
Brian: I’m all at sea past here. Syntactican needed!

The clitic pronominals are a different system
   than what happens downstairs.

The two systems are so incompatible, no movement of
downstairs things upstairs will work.
<table>
<thead>
<tr>
<th>Upstairs</th>
<th>Downstairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>No gender</td>
<td>Neuter vs. Communis</td>
</tr>
<tr>
<td>Pronominals only for objects</td>
<td>Gender driven case: neuters: erg/abs</td>
</tr>
<tr>
<td>unaccusative subjects</td>
<td>communis: nom/acc</td>
</tr>
<tr>
<td>No 1\text{st}, 2\text{nd} person subjects</td>
<td>No 3\text{rd} person anything (demonstrative used)</td>
</tr>
</tbody>
</table>
Clitic Order: pronominals

\[ [n] = aš \quad INA \quad MU.3.KAM \quad GEME-re[šzi] \]
conj = he \quad in \ three \ years \quad \text{unfree (inch)}
‘In three years he will become unfree’

\[ n = aš \quad nahta \]
conj = he \quad feared
‘He was afraid’

\[ aliyaš = wa \quad UL \quad wāi \quad UL = ma = wa \quad wāki \quad UUL = ma = wa \quad išparizzi \]
deer = quo \quad not \ cries \quad not = conj = quo \ bites \quad not = conj = quo \ kicks
‘The deer does not cry, (it) does not bite, (it) does not kick’

(from Garrett 1996)
Clitic Order: pronominals

Licensing a subject + the case of a direct object are mediated by a single functional head: $v$

(Chomsky 1995, 2001)

We propose that the subject clitic is directly generated in $v$, which bears default (3$^{rd}$) person

When the subject clitic is directly generated in $v$, then $v$ is effectively unaccusative, and does not case license a direct object.
Clitic Order: pronominals

Pronominal clitics are left-adjoined to a functional head (Kayne 1991); probably $v/v^*$, following Roberts 2010 (on Romance)

Pronominal clitics are adjoined to $v$ as a group: subj clitic with default 3$^{rd}$ person is base generated in $v$; datives and accusatives (when there is no subj clitic) move there as ‘defective goals’ (see Roberts 2010)
Clitic Order: pronominals

Clitics are adjoined in v, lacking asymmetric c-command. LCA cannot assign a linear ordering from this configuration. (Kayne 1994: 19).
References