

The Syntax of Questions in Hittite

Mattyas Huggard,

Program in Indo-European Studies UCLA

1 Introduction

1.1 Assumptions on the syntax of questions

1.1.1 Obligatory WH-movement

- In obligatory WH-move languages, the WH-phrase moves to a clause initial position (the highest specifier position of the Complementizer phrase of the matrix clause).

(1) What_i did Hattušili buy t_i ?

- If there are more than one WH-word in a question, only the WH-phrase which is closest to the Complementizer head moves to the specifier position.

(2) (a) Who_i t_i bought what?
(b) *What who bought t_i?

- In the case that the WH-phrase is base generated in an embedded clause, it moves to the clause initial position of the matrix clause through successive cyclicity in order to scope over the entire structure:

(3) (a) Who_i does Puduhepa believe [t_i Hattušili saw t_i]?
(b) *Puduhepa believes [who_i Hattušili saw t_i]?

- In indirect questions, the wh-phrase must move to the left edge of the interrogative clause:

(4) She knows [who_i Hattušili loves t_i]

1.1.2 WH-*in-situ*

- In WH- *in-situ* languages, the WH-phrase remains in its base generated position, as seen in Mandarin Chinese (Huang 1982: 267):

(5) (a) Hufei mai-le yi-ben-shu
Hufei bought one-CL-book
'Hufei bought one book'

(b) Hufei mai-le shenme?
Hufei bought what
'What did Hufei buy?'

(c) Ni xiang-zhidao Hufei mai-le shenme?
you wonder Hufei bought what
'What do you wonder Hufei bought?'

1.1.3 Partial WH-movement

- In partial WH-move languages, the WH-phrase originating in an embedded clause needs not to move to the matrix clause and makes use of a WH-expletive, such as in German (Sabel, 2000):

(6) (a) Was meinst du [wen Peter Hans vorgestellt]?
what think you who Peter Hans introduced has
'Who do you think Peter has introduced to Hans?'

(b) Wen meinst du [daß Peter Hans vorgestellt]?
who think you that Peter Hans introduced has
'Who do you think Peter has introduced to Hans?'

1.1.4 multiple WH-movement

- In multiple WH-move languages, both WH-phrases move to the left edge of the clause. In the literature, there are two types:

- languages that pattern with Bulgarian and Romanian in which both WH-phrases move to specifier positions in the left periphery above the complementizer head,
- languages which pattern with Serbo-Croatian and Polish, where the WH-phrases move to lower positions, below the complementizer head in 'Focus' type adjunction to the Inflectional phrase (due to lack of Subjacency effect, relative position of WH-phrase with adverbs, auxiliaries and clitics, cf. Rudin, 1988):

(7) Serbo-Croatian

- (a) Ko koga t_i vidi t_i?
who whom sees
Who sees whom?
- (b) Ko mu je šta dao?
who him_{CL} has what given
'Who gave him what?'
- (c) *Ko šta mu je dao?
who what him_{CL} has given

(8) Bulgarian:

- (a) Koj kogo vižda
who whom sees
'Who sees whom?'
- (b) Koj kakvo ti e kazal?
who what you_{CL} has told
'Who told you what?'
- (c) *Koj ti e kakvo kazal
who you_{CL} has what told?

1.2 the study of interrogatives in the oldest Indo-European languages

- As Hale (2007: 257) notes, there are at least two classes of linguistic units which hold a relatively fixed clausal position in the oldest Indo-European languages:

- interrogatives (wh-words) in clause-initial position, a generalization made by Delbrück (1888: 24)
- clitics in second position, a generalization made by Wackernagel.

- The detailed analysis of the syntactic behaviour of interrogatives, relative pronouns, pronominal clitics and sentential clitics in Vedic Sanskrit brought Hale (1987; 2007) to conclude that Vedic is a WH-move language, as seen in (9.a-d) which all have more than two constituents:

- (9) (a) RV 1.165.2a kávyā brāhmāṇī juṣuṣur yóvānaḥ
who_{Gen,sg} prayer_{Acc,pl} enjoy youth_{Nom,pl}
'Whose prayers do the youths enjoy?'
- (b) RV 4.18.12a ká te mātāraṃ vidhāvām acakrat
wh_{Nom} you_{Exclitic,Gen} mother_{Acc} widow_{Acc} make_{3sg}
'Who made your mother a widow?'
- (c) RV 8.48.3c kám nūnām asmān kṛṇavad ārātiḥ
wh_{Acc} now_{Adv} us_{Acc} make enmity_{Nom}
'What can enmity make us now?'
- (d) RV 8.73.4a kúha sthaḥ kúha jagmathuḥ kúha śyená iva petathuḥ
where be_{2DualPresAct} where go_{2DualPresAct} where falcon like fly_{2DualPresAct}
'Where are you two? Where did you two go? Where did you two fly like a falcon?'

- Based on the cross-linguistic generalization that clitics adjoin to the complementizer head (C), it is thus predicted that pronominal clitics would never occur to the left of complementizers, nor to the left of WH-elements in WH-move languages, and Hale (2007: 267) remarks that this is indeed the case for Vedic and Homeric Greek.
- In a few exceptional cases, WH-movement in Vedic is obscured by the topicalization of a single constituent as seen in the following examples (10)-(13):

- (10) RV 4.43.2c rātham kám āhur dravádaśvam áśúm
'Which chariot do they call horsedrawn, swift?'

(11) RV 1.32.14a *āher yātāram kam apaśya indra*
 'Which avenger of the serpent did you see, O Indra?'

(12) RV 8.64.9c *ukthē ka u svid āntamaḥ*
 'Who indeed is the dearest in praise-song?'

(13) RV 6.27.1b *indraḥ kam asya sakhyé cakāra*
 'What did Indra, do in his, friendship?'

- Since the structure of relative clauses is also dependent on WH-movement, this analysis of topicalization to a higher node with respect to the complementizer position was then extended to relative clauses in Vedic (Hale 1987; 2007), and the process was furthermore taken to be grammaticalized in Hittite in order to account for the structure of determinate relative clauses versus that of the indeterminate relatives (Hale, 1987; Garrett 1994), as laid out in Held's (1957) collection of Hittite relative clauses.
- However no one had yet investigated Hittite interrogative clauses *per se*, and WH-movement in Hittite was taken for granted based on the evidence of Vedic and Homeric Greek.
- This may no doubt be due to the fact that interrogatives are difficult to isolate in Hittite (the same inflected form of the *ku-* morpheme may function as an interrogative pronoun, relative pronoun, complementizer in causal clauses, and indefinite pronoun) and no collection of Hittite questions existed until Hoffner's (1995).

2 Hittite Interrogatives

2.1 Questionable questions

- Relative to Homeric Greek and the language of the Rigveda, Hittite has a more fixed syntax which in pragmatically unmarked environments is SOV. If one casually looks at interrogatives such as (14) and (15) one might think that the clause initial position of the WH-word supports a WH-move analysis:

(14) *kuš- war-aš-kan kuenta*
 who_{Nom.sg}-quote-them_{Acc-plc} kill_{3sg.pres}
 "Who killed them?" (KBo III 67 ii 4)

(15) *kuš-ta memahḫi*
 what_{Acc}-you_{Dat.sg} say_{1sg.pres}
 "What can I say to you?" (KBo XXVI 65 iv 23, 25)

- However, since there are only two accented constituents in these questions, namely the WH-word and the verb, one can not tell if this is simply the expected S (O) V / (S) O V order, or if there was indeed WH-movement.
- Questions with the WH-word in the nominative case are non-probative: since the expected position of the subject is the initial position in an unmarked clause, one can not determine whether WH-movement has taken place or not when the WH-word functions as the subject of the question.
- As Goedegebuure (2009) notes, 46 out of the 100 interrogatives collected by Hoffner (1995) only have 2 constituents: the WH-word and the verb, and thus reduces the corpus of direct questions to 54 questions containing more than 2 constituents.
- An additional factor one must control for in the selection of interrogative clauses, is that one must select only genuine, pragmatically neutral, information seeking questions. It is a well known universal that only genuine questions have obligatory WH-movement, as can be seen in (16).

(16) (a) *Ḫattušili loves who?
 (b) Who, does Ḫattušili love t?

- Echo questions on the other hand may remain in-situ in WH-move languages, and the WH-word receives in-situ intonational focus, as in (17).

(17) speaker A: Ḫattušili loves Puduḫepa
 speaker B: Ḫattušili loves WHO?

- The task of investigating the nature of question formation is not as straightforward as one may hope.

2.2 Matrix 'genuine' questions with more than one constituent

- The type of question which would indeed settle the matter in favor of WH-movement, would be to find a genuine, pragmatically neutral question with the order as in (18):

(18) WH_{Acc} (clitics) Subject_{Nom} IO (Adv) V

- However there is no such existing example in the remaining 54 interrogatives of the 100 in Hoffner's (1995) collection.
- In fact, all neutral questions with WH-direct-objects or in the oblique case contain the WH-word in a non-initial position in the clause. The surrounding context is provided along with the relevant questions:

(19) from a letter of an official to the Queen (KBo 8.23: 13-17):

[nu LU]GAL ^{URU}Isuwa [l]TTT⁴UTU-ŠI ŪL namma uezzi
nu MUNUS.LUGAL GAŠAN=YA [QA]TAMMA šak
*'The King of Isuwa will no longer come to His Majesty.
Know thus, queen, my lady.*

nu MUNUS.LUGAL GAŠAN=YA kult iyaši
conn Queen Lady=mine what_{Acc} do_{2sg-pres}
'What will you, Queen, my lady, do?'

(20) NH Oracular inquiry (KUB 5.1 i 92-93):

^dU ^{URU}Ne-ri-ik TUKU-an ZI-an ku-e-er-za KASKAL-ab-mi
Stormgod of Nerik angry_{Acc} soul_{Acc} what_{Acc} place-on-the-road_{1sg-pres}
'By what means will/can I "place on the road" (i.e. satisfy/appease) the angry soul of the Storm-god of Nerik?'

^{URU}Ta-ni-zi-la-an ku-wa-pi har-ga-nu-mi
Tanizila_{Acc} when destroy_{1sg-pres}

When I destroy Tanzila?

n=a-an ZI-an a-pé-er-za SĒD-nu-mi KIMIN SIG5-ru
conn=him_{Acc} soul_{Acc} that_{Acc} calm_{1sg-pres} Ditto be favorable_{3sg-imper}

Will I calm his soul by this means? Ditto. Let it be favorable.

- Contra Richard Beal (1999: 45), first clause cannot mean 'I will satisfy the angry soul of the Stormgod of Nerik by every means'. For that, the form would have to be *kuēzziya*. NS ablatives in -ēzza are always functionally equivalent to -ēz. See Melchert (1977: 447).

- For similar sequence of wh-question followed by yes-no question see KUB 5.1 iii 33-34 (same text):

(21) KASKAL ^{URU}Ta-ni-zi-la ku-wa-at NU.SIG5
campaign Tanzila why unfavorable
'Why is the campaign to Tanizila unfavorable?'

KARAS.ĪJA TA MÈ ar-pa-ša-a-i

nu DINGIR-LUM a-pu-u-un {sic!} GÜB-tar uš-ke-š NU.SIG5-du
Will the troops suffer misfortune by battle? Oh deity, is this the sinisterness that you see?
(translation by Beal 1999: 50)

- From the "fourth" Plague prayer of Muršili II (NH) KUB 14.13 iv 1-5:

(22) na-aš-ma=<ma>-n=a-at IŠ-TU KUR-TI=ma na-aš-ma IŠ-TU ÉRIN.MEŠ
ANŠE.KUR.RA.ĪJA A-N[A DINGIR.MEŠ] EN.MEŠ=YA EGIR-pa i-ya-nu-un
ma-a-an DINGIR.MEŠ EGI[R-pa] ta-a-ni-nu-mi ki-nu-n=a È-er
KUR-TUM ÉRIN.MEŠ ANŠE.KUR.RA.ĪJA ak-kiš-ke-et-ta-ri ku-it

'Or should I have restored it for the [gods], my lords, from my land or from my infantry and chariotry? If I now (am to) reestablish the gods, since now (my) household, land, infantry (and) chariotry are dying,

nu šu-me-eš DINGIR.MEŠ ku-e-er EGIR-pa ta-ni-nu-mi

conn you_{Acc-pl} god_{pl} what_{Acc} back_{Pres-vb} establish_{1sg-pres}

'by what means (am) I (to) reestablish you gods?'

(Similar translation by Itamar Singer 2002: 65-6)

- The context of these questions in (19)-(22) favour a non-echo interpretation: they are genuine information seeking, pragmatically neutral questions.
- The evidence from these examples does not favour a WH-move analysis which would predict that all the WH-forms would be in initial position of the clause. There are no topicalization/focus particles on the initial constituent of the clauses, and the context does not favour a focused/topicalized analysis for these clauses.
- However, (19)-(22) do support a WH-*in-situ* analysis

2.3 in situ wh-phrases in finite complement clauses

- Another source for investigating WH-movement is found in indirect questions.
 - If a language is a WH-move language, then it is predicted that the WH-phrase must move to the specifier of the Complementizer phrase of the embedded clause (Adger, 2003).
 - In addition, indirect echo questions are generally impossible (Roberts, 2007: 83):
- (23) (a) He has read HOW many books?! ⊗
 (b) *I wonder he has read HOW many books?! ⊗
- In Hittite, indirect questions are most often embedded under the verbs *šak-* 'to know', *auš-* 'to see', *ḫatrai-* 'to write' and *punušš-* 'to ask' (Hoffner & Melchert, 2008: 427; Mascheroni, 1980: 58-59) :

(24) letter from the King to Ḫimmiullī (HKM 27 8-10)

⁽⁶⁾ *n = a-aš-ta a-pa-a-aš* ¹⁰ KÚR *ku-wa-pi* ⁽⁹⁾ *na-iš-ke-et-ta-ri*
 conn = loc_{CL} that_{Nom} enemy_{Nom} where turn_{Imperf3sg-3rd}
⁽¹⁰⁾ *nu = mu ḫa-at-re-eš-ki*
 conn = me_{CL-Acc/Dat} write_{Imperf1sg}
 'Write to me where the enemy is heading.'

(25) HKM 48 18-23: Letter to the King from Kašturraḫšeli:

⁽¹⁸⁾ *nu = kán ke-e MUŠEN.ḪI.A* ⁽¹⁹⁾ *ku-e-da-ni KASKAL-ši an-da* ⁽²⁰⁾ *ša-an-ḫu-e-ni* |
 conn = loc_{CL} these_{Acc-pl} birds WH_{Dat/Loc} pathDat/Loc into_{LocAdv} seek_{1pl-pres}
⁽²¹⁾ *nu-u = n-na-š = a-an* ⁽²²⁾ *UTU-ŠI* ⁽²³⁾ *BE-LI = NI EGIR-pa ḫu-u-da-a-ak* ⁽²³⁾ *ḫa-at-ra-a-i*
 conn = us_{CL-Acc/Dat} = Loc_{CL} Majesty lord = our back immediately_{Adv} write_{2sg-1imper}
 'Write us back immediately (and tell us) in which direction (lit. on which road) we should seek these birds.'

(26) KBo 2.9 i 38-39:

zik ⁴ *IŠTAR* ^{URU} *Nenuwa GAŠAN-NI ŪL šakti* | *KUR* ^{URU} *Ḫatti GIM-an dammešḫan*
 you_{Nom} Ištār Nineveh lady-our not know_{2sg-pres} country Hattī how damaged_{Nom}
 "Do you Ištār of Nineveh our lady not know how the land of Hattī is damaged?"

(27) KUB 21.38 i 12:

ŪL [*šaggaḫḫi*] *karū kuieš LUGAL.MEŠ ešir*
 neg know_{1sg-pres} formerly_{Adv} WH_{NomPl} king_{Pl} be_{3pl-pres}
 'I do not know who were the kings formerly'

(28) question embedded in a question (KUB 23.101 ii 5-6):

nu tuel LÚ TEMU kuwat ŪL punušta | *memahḫun-ši GIM-an*
 conj your messenger why not ask_{2sg-pres} speak_{1sg-pres} = him_{3rd} how
 "Why did you not ask your messenger how I spoke to him?"

(29) *nu = za kāsma au* | ⁴U *NIR.GÁL = mu BELI = YA mahḫan peran ḫuyanra*
 conn = refl_{CL} here_{1stsg} see_{2sg-1imper-Acc} Storgod mighty = me_{CL-Acc} lord = my how forth run_{Pres}
 "Just see how the mighty Stormgod, my lord, goes before me!" (KUB 23.101 ii 5-6)

- As in the direct questions, the WH-phrases are non-initial in the indirect questions
- The clitics appear to the *left* of the WH-phrase, not to the right as in Vedic, another syntactic cue in favour of an *in situ* analysis over a WH-move analysis.

3 Further considerations and Conclusion

3.1 Morpho-syntactic typological considerations related to wh-movement

- Bach (1971) observed that WH- in situ languages tend to be OV and formulated what has come to be known as Bach's generalization:
- (30) 'If a language is OV, then it has WH- in situ' (Kayne, 1994: 54)
- One interesting property that characterizes wh-in-situ languages, is that the quantificational system in these languages builds on expressions that are used in wh-phrases. For example in Chinese, *shenme* can be interpreted as a WH-phrase, a universal quantifier, a negative polarity item, or an existential quantifier, depending on the context in which it appears (Watanabe, : 212)
- (31) (a) *ni xiang mai shenme ?*
you want buy what
'What do you want to buy?'
- (b) *wo shenme dou mai*
I everything all buy
'I want to buy everything'
- (c) *wo bu xiang mai shenme*
I neg want buy anything
'I don't want to buy anything'
- (d) *ta dagai mai-le shenme le*
he probably bought something-Part
'He probably bought something'
- As mentioned above at the end of section 1.2, one factor which makes it difficult to isolate Hittite questions, is that the same *ku-* morpheme may also be interpreted in the above mentioned functions.

3.2 Conclusion

- The evidence from the direct non-echo questions provided by Hoffner's (1995) collection, and the indirect questions presented here above points towards no WH-movement.
- Furthermore, the issue of the distribution of the enclitic anaphoric pronouns (with normal anaphoric function) to the *left* of the WH-word instead of to the right, as in the moved WH-words in Vedic and Homeric Greek, would also be indicative of a lack of WH-movement in genuine non-echo questions in Hittite.
- The analysis of Hittite as a WH- *in situ* language outfavours that of WH-move.
- The lack of WH-movement in interrogatives thus bares consequences on the syntactic analysis of Hittite relative clauses (see Huggard forthcoming, where I argue that in the case of indeterminate relative clauses, the relative pronoun is directly topicalized, whereas in determinate relative clauses the relative pronoun remains *in situ*).
- Further research is needed concerning the synchronic status of question formation in the various daughter languages of PIE.
- Given the proposal made by Rizzi (1997) concerning the Left Periphery, and the various strategies employed in question formation cross-linguistically (Wh-movement, *wh-in-situ*, partial wh-movement and multiple wh-movement), more attention should be assigned to these type of structures.

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