

ТИПОЛОГИЯ МОРФОСИНТАКСИЧЕСКИХ ПАРАМЕТРОВ

Материалы международной конференции
«Типология морфосинтаксических параметров 2014»

Выпуск 1

Москва
МГГУ им. М. А. Шолохова
2014

Типология морфосинтаксических параметров. Материалы международной конференции «Типология морфосинтаксических параметров 2014». Вып. 1. Под редакцией Е. А. Лютиковой, А. В. Циммерлинга, М. Б. Коношенко. Рецензенты: к. ф. н. О. И. Беляев, д. ф. н. Я. Г. Тестелец. М.: МГГУ им. М. А. Шолохова, 2014. — 272 с. ISBN 978-5-8288-1555-5

A V. Sidel'tsev

Institute of Linguistics RAS — MSUH, Moscow

WH-IN-SITU IN HITTITE¹**1. Wh-in-situ in SOV languages.**

Wh-movement is standardly understood to involve movement to Spec,CP to check the *wh*-feature on C⁰. In case of split projections it is assumed that the highest CP is always targeted, see, e. g., (Cheng 2009). *Wh*-phrases which are not demonstrably in the highest Spec,CP are assumed to be *in situ*. As is duly acknowledged in the *wh*-in-situ literature (Cheng 2003a, 2003b, 2009), the term *in situ* is highly misleading: *in-situ wh*-phrases are not necessarily base-generated and they commonly show movement effects. I will illustrate it by an array of preverbal *wh*-phrase construals in SOV² languages.

1.1. Hungarian.

There are ample cross-linguistic data that languages which attest preverbal *wh*-words are at least predominantly SOV and they also attest preverbal focus (Kim 1988, Kiss 2004: 7, Buring 2009, van der Wal 2012).

In the split CP system, the position preverbal *wh*-phrases target is demonstrably not the highest specifier of CP. And it is also targeted by focus. So the position is likely to be the specifier of a dedicated focus phrase, Spec,FocP, and the feature which is checked by *wh*-phrases is not +*wh*, but rather +focus. So the movement is focus movement, but it is obligatory. The clause architecture is described for Hungarian, arguably the best studied SOV language³:

¹ I thank the audience at TMP, Moscow, 15-17.10.2014, and ISLI, Moscow, 24.11.2014, esp. P. Arkadiev, E. Ljutikova, Y. Testelefs, A. Zimmerling. The author alone remains responsible for all possible errors of fact or interpretation. The research was supported by grant from RNF No 14-18-03270 “Typology of Word Order, Syntax-Semantics Interface and Information Structure in the Languages of the World”.

² Or at least basically SOV.

³ See, e. g., (Brody 1990; Szendrői 2003; Kiss 1998, 2004, 2007; Olsvay 2004).

- (1) *János kit mutatott be Marinak?*
 John whom introduced PV Mary.TO
 “**Whom** did John introduce to Mary?” (Kiss 2004: 90).

In minimalist formalism operating with dedicated topic and focus projections the clause is construed as: [TopP *János* [Spec,FocP *kit* [Foc⁰ *mutatott* [AspP *be* ... [VP *kit* [VP *Marinak* [V ~~*mutatott*~~]]]]]]⁴. Hungarian base word order is construed to be VSO. Topical verbal arguments optionally raise to Spec, TopP. If there is one focus/*wh*-word⁵ in the clause, it raises obligatorily to Spec, FocP⁶. *Wh*-phrases display movement effects.

1.2. Georgian.

In Georgian *wh*-phrases target the specifier of the same projection as focus (Skopeteas, Féry, Asatiani 2009; Skopeteas, Fanselow 2010):

- (2) a *ra a-kv-s še-nišn-ul-i?*
 what.NOM PV(S.INV.3)-have-IO.INV.3 PR-note-PTCP-NOM
 “**What** has he noted?”

- b **ra še-nišn-ul-i a-kv-s?* (Skopeteas, Fanselow 2010: ex. 15).

Only one constituent can target Spec,FocP: either *wh*-phrase, focus or negative pronoun.

1.3.

As dedicated focus position can be high, within CP, and low, within vP, *wh*-phrases target the position which is the dedicated focus position in a particular language. In Hungarian it was Spec,FocP within CP. In Armenian and Persian it is Spec,vP within the vP layer:

⁴ There are some variations of the formal presentations, see (Kiss 2004: 90) which are of no significance for the present paper.

⁵ Or negative indefinite pronouns, negative adverbs of frequency, degree and manner (Kiss 2004: 89-90).

⁶ If there are several foci in a sentence, all the rest remain *in situ*. Only focus which is part of the broad VP focus can be postverbal even if it is the only focus in the sentence. The position of multiple foci is a matter of parametric variation: they can be preverbal or clefted in a virtually identical system, present in, e. g., Chechen (Komen 2007).

- (3) a *Ara-n vor girk-en e k'artatsel?* Armenian
 Ara-NOM which book-ACC is read
 “**Which book** did Ara read?”
- b *Nâder ki-ro did ?* Persian
 Nader who-ACC saw
 “**Who** did Nader see?” (Megerdoomian, Ganjavi 2009a).

Spec,vP for Armenian and Persian is a dedicated focus position (Kahnemuyipour 2006, Megerdoomian, Ganjavi 2009b). In Armenian and Persian the movement to Spec,vP is obligatory, but, strangely enough, *wh*-phrases do not display movement effects (Megerdoomian, Ganjavi 2009a).

1.4. Obligatory focus-movement?

The obligatoriness of the movement is a parametric feature. As mentioned in 1.3, in Persian/Armenian the focus-movement is obligatory. In Georgian movement of *wh*-phrases to Spec,FocP which is focus movement is not obligatory. Thus Georgian attests *wh*-phrases both in their base generated position and out of it. No data are available as to whether the position displays movement effects.

1.5. Scrambling of *wh*-phrases.

In Armenian and Persian, after targeting the specifier of the low focus phrase, *wh*-phrases can scramble on to higher projections, information structure related (Kahnemuyipour 2006, Megerdoomian, Ganjavi 2009b). *This* movement is optional.

- (4) a *vor girk-en e Ara-n k'artatsel ?* Armenian
 which book-ACC is Ara-NOM read
 “**Which book** did Ara read?”
- b *ki-ro nâder did ?* Persian
 who-ACC Nader saw?
 “**Who** did Nader see?” (Megerdoomian, Ganjavi 2009a).

Megerdoomian, Ganjavi (2009a) construe the clause initial position as Spec,TopP because clause initial *wh*-phrases are D-linked. In (Megerdoomian, Ganjavi 2009b) they provide a slightly divergent

analysis positing that Persian *wh*-phrase can optionally move to a focus position in the left periphery at spec, FP for emphasis.

1.6. Varieties of CP projections *wh*-phrases target.

Spec,FocP is not the only CP projection *wh*-phrases target. In the following languages the position is different from focus.

1.6.1. *Ossetic*. Besides *wh*-phrases, in Ossetic the position is targeted by relative pronouns and subordinators (Ljutikova, Tatevosov 2009; Erschler 2012; Belyaev 2014a, 2014b), but not focus:

- (5) a 1. *didinž-ət3 sə čəžg-ən ba-lɜvar kod-t-aj*,
 flower-PL what girl-DAT PV-present do-TR-2SG.PST
 2. *fed-t-on wəj fəd-ə*.
 see.PFV-TR-1SG.PST DEM.DIST.GEN father-GEN
 “I saw the father of **the girl who** you gave flowers to”.

- b *žawər-ə či fed-t-a* ?
 Zaur-GEN who.NOM see.PFV-TR-3SG.PST
 “**Who** saw Zaur?”

- c *d3= nəxaš=dən kʷə a-jqʷəšt-on, ...*
 2SG.POSS speech=2SG.DAT when PV-hear-1SG.PST.TR
 “**When** I heard you speak, ...” (Belyaev 2014b).

The position all the constituents target is construed as Spec,FinP and the feature *wh*-phrases check is +quantifier. The movement is obligatory and the *wh*-phrases display movement effects (Lyutikova, Tatevosov 2009).

1.6.2. *Kashmiri*. In Kashmiri fronting of a *wh*-phrase to an immediately pre-finite-verb position is obligatory but the *wh*-phrase does not have to be clause-initial. However, at most one non-*wh*-phrase may precede the *wh*-phrase(s) (Bhatt, Munshi 2009):

- (6) a *kemis dits ra:j-an kita:b ?*
 who.DAT give.PST.FSG Raj-ERG book.F
 “**Who** did Raj give the book to?”
 b *kita:b kemis dits ra:j-an ?*
 book.F who.DAT give.PST.FSG Raj-ERG
 “**Who** did Raj give the book to?” (Bhatt, Munshi 2009)

The position is construed differently depending on how many constituents precede the *wh*-phrase: if the *wh*-phrase is clause second, it is construed as targeting Spec,MoodP. If it is preceded by a constituent, it is construed as Spec,*wh*-FocP. The latter position is also targeted by relative phrases, but not by focus. The fact that the position involves movement follows from the fact that fronting can involve just the relative pronoun and not the entire phrase (Bhatt, Munshi 2009).

1.7. *Wh-in-situ vs wh-ex situ: explanation of the parametric difference.*

The majority of preverbal *wh*-phrases above display movement effects. The only languages where preverbal *wh*-phrases do not display movement effects are Armenian and Persian (Megerdooian, Ganjavi 2009a). Presumably the two languages do not attest null *wh*-operator movement to Spec,CP whereas all the rest of the languages from the previous sections do⁷. Interestingly, however, focus-movement to one of information structure related projections attests movement effects in Persian/Armenian.

1.8. *Are preverbal wh-phrases always the result of movement?*

It follows from the above argument that preverbal *wh*-phrases are always the result of focus⁸-movement. However, this is only partially so.

1.8.1. *Basque.* A case of different construal is represented by Basque. At face value Basque appears to be identical to, e.g., Hungarian above in that both *wh*-phrases and focus must be left adjacent to the verb, *wh*-phrases (7.Q) and focus (7.A) occupy the same position (Etxepare, Ortiz de Urbina 2003: 454):

(7)	Q	<i>Jon</i>	<i>señek</i>	<i>ikusi</i>	<i>rau?</i>
		Jon.ABS	who.ERG	seen	has
		“ Who saw Jon?”			
	A	<i>Jon</i>	<i>Mirenek</i>	<i>ikusi</i>	<i>rau.</i>
		Jon.ABS	Miren.ERG	seen	has

⁷ The account goes back to Watanabe, see (Cheng 2009 with ref). The modern take on the analysis is provided by (Cable 2007; İşsever 2009; Slade 2011): in those languages which attest *wh*-in situ, the null question operator raises to Spec,CP.

⁸ Or related.

“MIREN saw Jon” (Arregi 2001: ex. 1).

The resulting linear order in case of subject *wh*-phrases or focussed subject is non-canonical (OSV as opposed to the neutral SOV word order) (Arregi 2001). In standard accounts which operate with non-split CP the preverbal focus/*wh*-position is construed as Spec,CP⁹. However, a closer analysis reveals an important asymmetry between subjects and objects to the left of the focus/*wh*-phrase: whereas subjects instantiated by quantifier phrases like *seoser* “something” or *damak* “all” can be to the left of a focused object (8a), objects instantiated by the same quantifier phrases cannot be to the left of the focused subject (8c):

- (8) a *Seoseñek* *auxe liburu* *irakurri* *ban.*
 someone.ERG this book.ABS read had
 “Someone read THIS BOOK”.
- b *Jonek* *seoser* *irakurri* *ban.*
 Jon.ERG something.ABS read had
 “Jon read something”.
- c **Seoser* *Jonek* *irakurri* *ban.*
 something.ABS Jon.ERG read had (Arregi
 2001).

Arregi (2001, 2002) argues on the basis of the data that no movement of the subject is involved in case of focused object. Thus focused object/*wh*-phrase objects are *in situ* preverbally. It is the other constituents which move out of the way.

1.8.2. *Turkish*. A similar construal is proposed for Turkish where *wh*-phrases, even multiple ones, as well as focus, are preverbal:

- (9) *Tamer* *ne-yi* *NERE-YE* *koy-du ?*
 Tamer.NOM what-ACC where-DAT put-3SG.PST

“**What** did Tamer put **where**?” (İşsever 2009: ex. 12a).

İşsever (2009) proposes that *wh*-phrases and focus in Turkish are licenced in a low Focus Projection (FocP) above vP in the low TP area. However, only the lower copy of the *wh*-phrase in its base gen-

⁹ See ref. in (Arregi 2001, 2002).

erated position is pronounced (İşsever 2009: 108). The construal implies that in case of preverbal subject *wh*-phrases non-*wh* object is obligatorily topicalized.

2. Hittite

In the rest of the paper I will explore the data of yet another head final SOV language which is *wh*-in-situ — Hittite, an extinct Indo-European language, Anatolian group, attested on clay tablets in 18-12 cc BC on the territory of modern day Turkey.

2.1.

As was demonstrated by (Hoffner 1995; Goedegebuure 2009), Hittite attests both preverbal (10) and clause initial (11) *wh*-phrases:

- (10) NH/NS (CTH 89.A) KUB 21.29(+) rev. iv 13-14
šummeš=kan *kui-t* *ney-ari*
 you.DAT¹.PL=LOC what-NOM.SG.N happen-3SG.PRS.MED
 “**What** will happen to you?”¹⁰

- (11) OH/NS (CTH 337.1.A) KUB 48.99 obv 6-7
kui-š=war=an *hara-n* ^D*Pirwa[-i]*
 who-NOM.SG=QUOT=him eagle-ACC.SG Pirwa-DAT.SG
 URU *Haššuw-aza* *uwate-z[zi]*
 Hassu-ABL bring-3SG.PRS
 “**Who** will bring the eagle from the city of Hassu to Pirwa?”¹¹

On the basis of the data it was recently suggested by Huggard (2011) that Hittite is a *wh*-in-situ language. The basic position is preverbal as in (12). It is construed as base generated (Huggard 2011)¹². Clause initial/first position, as in (11), is the result of focus movement to Spec,ForceP. Before I critically assess Huggard’s proposal, a few words are necessary about Hittite syntax.

2.2. Basic Hittite Syntax.

¹⁰ Following (Neu 1968: 115, CHD L-N: 215, 363). Cf. (González Salazar 1994: 165).

¹¹ Following (Goedegebuure 2009: 948). Cf. (Hoffner 1995: 93; E. Rieken et al. (ed.), *hethiter.net*/: CTH 337.1 (TX 2009-08-27)).

¹² The same is posited for relative pronouns which then target either Spec,FocP or Spec,TopP depending on their information structure reading.

Hittite is a head initial SOV language with SO/OS variation¹³. The verb is rigidly, but not absolutely, clause final, as in:

(12) NH/NS (CTH 62.II.B) KUB 14.5+ obv. 6-7

1. [(*nu* ^m*Azira-š* *ABU=YA=pat*)]
 CONNAziru-NOM.SG.C father=my=EMPH
paḥḥaš-tat
 protect-3SG.MED.PST
2. *ABU=YA=ya* [^m*Azir(a-n* *QADU* *KUR=ŠU*)]
 father=my=and Aziru-ACC.SG.C with country=his
paḥḥaš-tat)]
 protect-3SG.MED.PST

“(1) Aziru protected only my father. (2) And my father protected Aziru, together with his land”¹⁴.

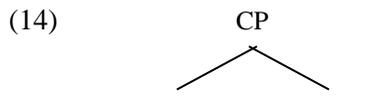
Hittite sentences can, in addition to main verbs, have auxiliary verbs. These are forms of the verbs *ḥark-* “have” and *ēš-* “be”. Auxiliaries always follow the main verb:

(13) MH/MS (CTH 261.3) KUB 13.1(+) rev. iv 20'-23'

- [(*našma*)] *ÉSAG* *kuiški* *ZI-it*
 or granary somebody.NOM.SG.C by.his.will
kīnu-an *ḥar-z[i]*
 break-PRTC.NOM.SG.N have-3SG.PRS

“Or somebody **has broken** open a granary by his own will”¹⁵.

Such word order as well as the fact that Hittite does not normally exhibit postverbal subjects or objects indicates head final projections within the inflectional layer¹⁶. Thus the relevant fragment of the tree for (13) is:

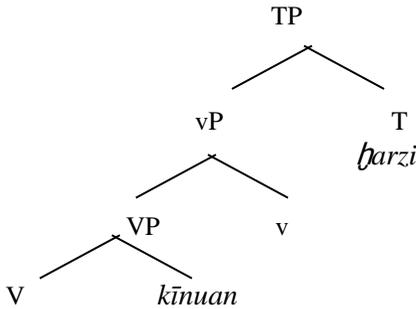


¹³ See generally (Luraghi 1990, to appear; Hoffner, Melchert 2008; Goedegebuure 2003, 2009, 2014; Sideltsev 2014), esp. generative (Garrett 1990, 1994; Huggard 2011, 2013).

¹⁴ Following (del Monte 1986: 160-161; Beckman 1996: 55).

¹⁵ Following (CHD Š: 61; de Roos 2005: 52; Pecchioli Daddi 2003: 178-179; Hoffner, Melchert 2008: 428).

¹⁶ CP projections are head initial.



Therefore, the same scenario is applicable to Hittite TP as to Indo-Aryan languages; see, e. g., (Kumar 2006: 47)¹⁷.

If a clause contains, e. g., a subordinator and subject or object, one of the attested word orders is SO/OS-subordinator-V:

- (15) NH/NS (CTH 81.A) KUB 1.1+ rev. iv 7-8
ammuk=ma LUGAL-*UTTA* ^D*IŠTAR* GAŠAN=*YA*
 me.DAT.SG=but kingship Istar lady=my
annišan=pat *kuit* *memi-ške-t*
 previously=EMPF because say-IMPF-3SG.PST

“Because to me my lady Istar had **previously** promised the kingship,…”¹⁸.

Within the cartographic approach of (Rizzi 1997) adopted for Hittite by Huggard (2011, 2013) whom I follow here, ex. (15) can only be construed as

- (16) [ForceP *ammuk* [TopP LUGAL-*UTTA* [TopP ^D*IŠTAR* [FocP *annišan* [FinP/QP¹⁹ *kuit* [TP *memišket*]]]]]]].

The linearization implies that overt preverbal subjects and objects are discourse/information structure sensitive A'-constituents whose appearance and distribution is governed by discourse and information structure notions. They are assigned case *in situ*, subject in

¹⁷ See (Huggard 2013) for V-to-T in Hittite.

¹⁸ Following (Otten 1981: 24-25, Huggard 2013: 4).

¹⁹ See for FinP (Huggard 2013) and for QP (Sideltsev, to appear).

Spec,vP, object in Spec,VP and then they raise to Spec,TopP/FocP²⁰ in both matrix and embedded clauses²¹.

The scrambling is corroborated by the order of subjects and objects in the Hittite clause, which is governed by their information structure, and not by their θ -roles (subject — object), i. e., as argued by Goedegebuure (2003, 2009, 2014), contrastive focus always follows any kind of topic and is preverbal irrespective of its θ -role; additive/expanding foci and contrastive topics are clause initial — see ex. (17) where the word order is non-canonical OSV:

- (17) MH/MS (CTH 186) HKM 13 obv. 3 – rev. 14
nu=za apēl waštul zik
 CONN=REFL he.GEN.SG sin.ACC.SG.N **you**.NOM
dā-tti
 take-2SG.PRS
 “**You** take upon yourself his ‘sin’”²².

Following (Goedegebuure 2014: 399-400), in this example the actual offender is replaced with another person, who might take his sin upon himself. Thus *zik* “you” raises to Spec,FocP and receives contrastive focus reading. *apēl waštul* “his sin” is topic and raises to Spec,TopP.

The canonical SOV word order is then determined by the fact that subjects are much more commonly topics and objects — foci. Only if there are several topics with the same inferability, animacy, etc, status, the order is determined by θ -roles (subject — object).

The only verbal arguments which behave differently from this pattern are those instantiated by existential quantifiers (*kuiški* “someone”, etc). They are consistently lower than the rest of verbal arguments, including contrastive focus, in the clause structure. See 2.4.2 and (Sideltsev, to appear) for their linearization. Quantified phrases and indefinite/non-specific NPs in my corpus behave differently — in the majority of cases similarly to DPs²³.

2.3.

²⁰ As is claimed, e.g., for Hungarian, see (Kiss 2004).

²¹ As, e. g., in Old Romanian, see (Alboiu, Hill, Sitaridou, to appear).

²² Following (Hoffner 2009: 118).

²³ In a handful of cases they behave like bare existential quantifiers.

Now I will get back to *wh*-phrases. In view of the cross-linguistic background in 2.2, preverbal Hittite *wh*-words can be a priori construed in a variety of ways: (a) as base generated, (b) in a low focus position in Spec,vP²⁴, (c) in a high focus position in Spec,FocP, (d) in a position different from dedicated focus position but targeted by relative pronouns. Clause initial *wh*-phrases will result from optional scrambling to A' positions in all the accounts.

2.3.1. Huggard (2011) analyzes Hittite *wh*-phrases as (a), base generated position as in Turkish or Basque above. In this case the null *wh* operator will raise to Spec,CP whereas the phonological *wh*-phrase will stay *in situ*, within vP. All other non-*wh* verbal arguments will scramble to the specifiers of information structure related projections within CP.

The argument was provided by Goedegebuure (2003, 2009) who claimed there exists focussing in the base generated position, different from the focus projection within CP. The empirical ground was that subject *wh*-words are predominantly clause first/initial whereas object and adverb *wh*-words are predominantly preverbal: subject *wh*-words are clause initial 6 times in her limited corpus and preverbal once, whereas object *wh*-words are never initial and 5 times preverbal (Goedegebuure 2009). Thus both subject and object *wh*-phrases appear in their canonical, i.e. base generated positions.

However, the figures are simply too small, thus I assess them as random, i.e. the 6 subject *wh*-words clause initially are merely the result of scrambling to Spec,ForceP whereas preverbal subject *wh*-words²⁵ are the position *wh*-phrases merge in. This analysis is *required* by much more statistically numerous constituents like adverb *wh*-words which are both preverbal and clause initial/ first. Contrastive foci also are strictly preverbal, irrespective of the θ -role of the constituent.

In what follows I will attempt to discover some unambiguous inner Hittite arguments in favor of either of the feasible construals in 2.3.

²⁴ There is also a long standing tradition positing a low focus within vP, see (Belletti 2003; Brody, Szabolcsi 2003; Butler 2004; Jayaseelan 2006-8; Alboiu, Hill, Sitaridou, to appear).

²⁵ Not limited to one example, see, e. g., (12) above.

2.3.2. The first argument concerns linear word order, the linear position of *wh*-phrases in relation to other constituents in the clause. *Wh*-phrases in Hittite regularly precede negation markers:

- (18) NH/NS (CTH 177.3) KUB 23.101 obv. ii 5
nu tu-el ^{LÚ} *TEMU kuwat UL punuš-ta*
 CONN you-GEN.SG messenger why NEG ask-3SG.PST
 “**Why** did you not ask your messenger”²⁶.

A very special problem is constituted by negative pronouns. The Hittite negative pronouns are productively derived from negation marker + existential quantifier and thus they produce the impression of NPIs licensed by negation markers in the same clause as they are built with the help of free standing negation marker and existential quantifier, but the negation marker is independent only in two examples out of my corpus where it raises to CP whereas the existential quantifier stays low. However, such examples are isolated. In the absolute majority of cases negation marker + existential quantifier is not a negative polarity item licensed by negation marker, but rather a negative pronoun. It follows from several properties: (a) normally, negation marker raises together with existential quantifier; (b) negation marker + existential quantifier are between the preverb and the verb whereas existential quantifiers are normally in front of both preverb and verb²⁷; (c) negation marker + existential quantifier is counted as one constituent to determine the second position in a clause. In any case Hittite seems to exhibit both negative polarity items (rarely) and negative pronouns (commonly).

The same order is construed as one of the main arguments for [...[FinP[NegP[TP]]]] in Ossetic with *wh*-words sitting in Spec,FinP (Ljutikova, Tatevosov 2009). It might seem to be decisive evidence in favor of ex vP position of *wh*-phrases.

However, the argument is not really sufficient to demonstrate that *wh*-words are outside of vP. E.g., in Persian where *wh*-phrases are construed to sit in Spec,vP they also precede the negation marker (Kahnemuyipour 2003: 262):

²⁶ Following (CHD Š: 61; de Roos 2005: 52; Hoffner, Melchert 2008: 428). Cf. (Hagenbuchner 1989: 278-279).

²⁷ Cf. (Huggard 2014) who does not consider all the data.

- (19) *ali* *kojâ* *na-raft* Persian
 Ali where NEG-went
 “**Where** did Ali not go?” (Kahnemuyipour 2003: 262).

Hittite negation marker is not a head as shown by the verb head movement past it, see (Sideltsev, to appear), so linearization along the lines for Persian and not for Ossetic remains a possibility — both *wh*-words and negative markers *can* sit in Spec,vP. Thus the argument involving the linearization of *wh*-words and negation markers proves inconclusive.

2.3.3. Now I turn to the next potentially relevant diagnostic, *wh*-phrase position in the clause vis-à-vis adverb position.

Adverb position in the clause has been used extensively as a diagnostic for the *in situ/ex situ* position of verbal arguments. See. e. g. German examples from (Webelhuth 1992: 197, exx. 166G-168G):

- (20) a *Weil er wohl das Buch gelesen hat* German
 bec. he probably the book read has
 “Because he has **probably** read the book”.
- b *Weil er das Buch wohl gelesen hat*
 bec. he the book probably read has
 “Because he has **probably** read the book”.
- c *Weil er wohl ein Buch gelesen hat*
 bec. He probably a book read has
 “Because he has **probably** read a book”.

wohl “probably” is a VP external adverb. It follows from the examples that a definite DP can appear on either side of a sentence adverb like *wohl* “probably” in (20a-b) whereas an indefinite direct object can only appear to the right of *wohl*, as seen in (20c) — i. e. in its base-generated position (Webelhuth 1992: 197).

On the basis of such data Cinque (1999) proposed a whole hierarchy of adverbs occupying different fixed structural positions in the clause.

In Hittite adverbs like *kiššan* “in this way”, *apeniššan* “in that way”, *mekki* “much” are consistently to the right of *wh*-words:

- (21) NH/NS (CTH 171) KUB 23.102 obv. 5'-6'

ŠEŠ^{UTTA}=*ma* Û ŠA ħUR.SAG *Ammana* *uwauwar* *kuit*
 brotherhood=but and of Mt. Ammana coming why
namma *meme-ške-ši*
 then speak-IMPf-2SG.PRS

“But **why** do you then continue to speak about “brotherhood” and about coming to Mt. Ammana?”²⁸

The class of low adverbs in Hittite comprises manner adverbs *kiššan* “in this way”, *apeniššan* “in that way” and a measure adverb *mekki* “much”²⁹. The adverb *namma* “then” which has a floating position in the clause can optionally be immediately preverbal.

Cross-linguistically these adverbs belong to the manner and measure adverbs which are the lowest adverbs in a sentence according to (Cinque 1999). As for their precise position, the adverbs are sometimes claimed to mark the left edge of the vP (Kahnemuyipour 2004, 2009). E. g., in Persian the position of *wh*-words to the right of manner adverbs is construed as the position of *wh*-words within vP (Megerdoomian, Ganjevi 2009b):

(22) a *ali bâ sor’at raft madrese* Persian
 Ali with speed go.3SG.PST school
 “Ali went to school quickly”. (Megerdoomian, Ganjevi 2009b)

b *ali bâ sor’at kojâ raft?*
 Ali with speed where go.3SG.PST
 “**Where** did Ali go quickly?” (Megerdoomian, Ganjevi 2009b)

c *’ali kojâ bâ sor’at raft*
 Ali where with speed go.3SG.PST (Megerdoomian, Ganjevi 2009b).

Thus if it could be shown that manner/measure adverbs in Hittite similarly mark the left edge of vP, the linear position of *wh*-words to the left of these adverbs would strongly favor their vP-external position. Now I will see if low adverbs occupy a fixed structural position

²⁸ Following (Hoffner 2009: 323).

²⁹ See (Goedegebuure 2014; Sideltsev 2014).

and can be a diagnostic as to the position of *wh*-words in the clause.

Linearly these low adverbs are immediately preverbal and follow anything in the clause³⁰: — any verbal argument, be it topic, focus, *wh*-word or existential quantifier:

(23) a NH/INS (CTH 106.A.1) Bo 86/299 rev. iii 2-3

našma ANA AWAT KUR ^{DU}–*tašša*
 or to matter land Tarhuntassa
kui-t *kiššan* EGIR-*an*
 something-NOM.SG.N as.follows then
iyan
 do.PRTC.NOM.SG.N

“Or concerning the problem of the land of Tarhuntassa **something** is stipulated subsequently as follows”³¹.

b NH/NS (CTH 407) KBo 15.1 obv. i 12-13
nu=kan ANA LÚ LUGAL-*u-š* *anda kišan*
 CONN=LOC to man king-NOM.SG.C in to in.this.way
memai
 speak.3SG.PRS

“And it is the **king** who speaks to the man in this way”³².

What is significant is that they follow even the verbal arguments which are the lowest in the clause³³. They also follow preverbs and negation markers. How do we linearize the distribution? There are two alternatives. The first is to locate the low adverbs as adjuncts within VP. This would mean that all verbal arguments, including objects and *wh*-phrases, are out of their base generated position in the clause, but it will not show whether *wh*-words are in Spec,vP or in Spec,FocP. Unfortunately, there is no evidence that manner adverbs are higher, adjuncts to vP. The prosodic behavior of Persian adverbs (Kahneyipour 2004, 2009) which is seen as indicating their position at the

³⁰ When they are part of broad predicate focus. They can be focussed or topicalized and then they are in linearly different positions, those of topics and foci.

³¹ Following (Ottén 1988: 20-21). Cf. (Beckman 1996: 114).

³² Following (Goedegebuure 2014: 393).

³³ Existential quantifiers in (23a) which in their turn follow preverbal focus.

left edge of vP is not available for a dead language like Hittite.

The evidence so far has been inconclusive. *Wh*-phrases can sit either in Spec,vP or in Spec,FocP. However, if they sit in Spec,vP, it will be the only dedicated focus position and it will host preverbal foci too³⁴. Thus, in principle, one can apply both the analysis developed for Ossetic and for Persian to Hittite *wh*-phrases. In the former case Hittite will attest the dedicated high focus position within CP and in the latter — the low one within vP.

2.3.4. Thus negation markers and low adverbs cannot serve as an unambiguous diagnostic for the position of *wh*-phrases. Preverbs which are consistently higher in the clause both than negation markers, negative pronouns and low adverbs may prove the long sought for diagnostic, however. Huggard (2014) construes preverbs as a type of vP adverb marking the left edge of the vP domain. I (Sideltsev, to appear) construe them as heads of PrvP dominating either vP or TP. In any account, preverbs do seem to mark the left edge of the vP/TP domain. (24) shows that *wh*-phrases are higher than preverbs:

- (24) MH/MS (CTH 186[?]) HKM 43 obv. 1' -5'
n=[aš]ta ^mTarul[i?]y[a]š[?] tuzzi-n
 CONN=LOC Taruliya.GEN.SG army-ACC.SG.C
^mZilapiyašš=a ÉRIN^{MEŠ} GIBIL *maḥḥan*
 Zilapiya.GEN.SG=and troops new how
šarā *uwat-er*
 up bring-3PL.PST

“**How** could they have brought up the army of Taruli(ya) and the new troops of Zilapiya?”³⁵.

Thus (24) finally establishes that *wh*-phrases merge in a position out of vP.

The following is only an apparent counterexample:

- (25) MH/NS (CTH 42.A) KBo 5.3+ rev. iii 56'
 (Who was Mariya and for what reason did he die? Did not a lady's maid walk by and he look at her? But the father of My

³⁴ In the languages from section 1 *wh*-phrases target Spec,vP only if focus targets it too.

³⁵ Following (Hoffner 2009: 169).

Majesty himself looked out of the window and caught him in the offence, saying:)

zik=wa=kan *apūn* *anda* *kuwat* *auš-ta*
 you=QUOT=LOC that.ACC.SG.C into why look-3SG.PST

“**Why** did you look at that (woman)?”³⁶.

As is seen from the previous context, in (25) the complex predicate (preverb + verb) is D-linked to the previous stretch of discourse. This triggers the preverb’s raising to Top⁰. Thus the example is compatible with any construal of *wh*-phrases and does not contradict (24).

2.3.5. Yet another piece of decisive evidence for the out-of-vP position of *wh*-phrases is provided by verb movement³⁷. If focus and *wh*-words were within vP or in their base-generated position and in view of the head final character of the Hittite TP layer, there would be no position the verb could target to stay between the *wh*-phrase and the low adverb in

(26) NH/NS (CTH 63.A) KUB 19.31+ rev. iii 27”-31”
nu *k[ū]n* *memiyan* *kuwat* *iya-tten*
 CONN this.ACC.SG.C matter-ACC.SG.C why do-2PL.PST
QATAMMA
 in.this.way

“So, why have you **handled** this matter in this way?”³⁸.

In (26) the low adverb *kiššan* is not contrastively focused, so it is not in Spec,FocP, but rather adjoins to TP or to vP. The verb is obviously *ex situ*. Since it was argued in 2.2 that the inflectional domain is head final, the only clause internal position the verb can target in (26) is Fin. So the *wh*-word in this example must be higher than Fin, it may be either in Spec,FinP, or in Spec,FocP. Since it is much easier to provide the trigger (+focus feature) for it to move to Spec,FocP I assume that the *wh*-phrase here sits in Spec,FocP, the same position as focus³⁹.

³⁶ Following (Beckman 1996: 28, Hoffner, Melchert 2008: 352, hethiter.net/: CTH 42 (TX 17.11.2011, TRde 17.11.2011)).

³⁷ I will refer for more detail to (Sideltsev, to appear).

³⁸ Following (Miller 2007: 126-7, 129-130).

³⁹ It is important to remind that even if *wh*-words target the same position as contrastive foci, they behave differently from them in that they op-

2.4.

It also follows from (26) that, pace Huggard (2011), *wh*-words and relative pronouns target different positions. Ex. (27) shows the same V-to-Fin movement as (26)⁴⁰. However, as different from the *wh*-phrase in (26), the relative pronoun is lower than the verb. Thus it must occupy the position different from that of *wh*-words and foci which stay higher than the V in Fin:

- (27) NH/INS (CTH 383) KUB 21.19+ obv. ii 9
apāt=ma *ḪUL-lu* *uttar*
 that.ACC.SG.N=but evil.ACC.SG.N thing.ACC.SG.N
iya-t *kui-š*
 do-3SG.PST who-NOM.SG.C
 “The one who **did** that evil thing, ...”⁴¹.

2.4.2. The only projection the relative pronoun can target in (27) is Spec,QP, a quantifier position with the linearization [ForceP[TopP[FocP[FinP[QP[TP]]]]]]⁴². It appears that the same position is targeted not only by relative pronouns, but also by subordinators and bare existential quantifiers:

- (28) a NH/NS (CTH 61.II.7.A) KBo 2.5+ rev. iii 34-35
nu ^m*Aparru-š* *LÚ* ^{KUR}[*Kal*]*ašma*
 CONN Aparru-NOM.SG.C man Kalasma
kūruriaḫ-ta *kuit*
 get.hostile-3SG.PST as
 “As Aparru, the man of Kalasma, **started hostilities**, (he mobi-

tionally scramble to Spec,ForceP whereas contrastive foci always sit in Spec,FocP. Additive foci, however, also scramble to Spec,ForceP.

⁴⁰ It follows, among other things, from the fact that the information structure reading of the verb is identical to that *in situ*. In Top, Foc, and Force which verbs also target in Hittite, (Sideltsev, to appear) and informally (Sideltsev 2014), the information structure reading of the verb is different from that *in situ*.

⁴¹ Following (Singer 2002: 742-3).

⁴² Cf. (Huggard 2014). The position is not Spec,FinP as in Ossetic (Ljutikova, Tatevosov 2009), because the verb moves past it when it lands in Fin, see for a detailed argument (Sideltsev, to appear).

lized 3000 troops)”⁴³.

b NH/NS (CTH 293) KUB 13.35+ obv. i 30

E[GI]R–*zi=man=wa=za da-hhi*

later=IRR=QUOT=REFL take-1SG.PRS

kuitki

something.ACC.SG.N

“Would I afterwards **take** something for myself?”⁴⁴.

I will provide elsewhere detailed evidence in favor of this construal. Suffice it to say here that the common position of all these constituents follows from their preverbal placement, the fact that only one member of each set is present in the preverbal position in a clause, and verb movement⁴⁵. The strong feature on Q then is of quantificational nature⁴⁶. See similarly (Ljutikova, Tatevosov 2009) for Ossetic, (Munshi, Bhatt 2009: 221) for Kashmiri.

3. Hittite Data: Summary

Following (Huggard 2011) Hittite does attest *wh*-in-situ in that there is no obligatory *wh*-movement to the specifier of the highest CP projection. However, pace (Huggard 2011), Hittite *wh*-in situ does not involve *wh*-phrases in the base-generated position. It is syntactic movement out of vP to a low position within the CP layer. *Wh*-words merge in the same position as focus (Spec,FocP) and then optionally scramble further on to Spec,ForceP. Relative pronouns, bare existential quantifiers and subordinators merge in Spec,QP and then scramble optionally to Spec,TopP or Spec,ForceP. The feature that *wh*-words

⁴³ Following (Goetze 1967: 188-9).

⁴⁴ Following (Hoffner 2003: 58, Werner 1967: 4-5).

⁴⁵ See for semantics (Hagstrom 1998, Kratzer, Shimoyama 2002, Butler 2004: 183, Shimoyama 2006, Cheng 2009: 777, Slade 2011, Szabolcsi 2013) and many others. (Manzini, Savoia 2002, Arsenijević 2009: 41, Hall, Caponigro 2010: 548, Kayne 2010, Haegeman 2011, Manzini 2012) claimed that subordinators should be assessed as relative pronouns.

⁴⁶ The best-known parallel for designated structural positions for quantifiers comes from Hungarian where DistP is posited for universal quantifiers, *is* phrases and (optionally) positive existential quantifiers like *sok* “many” before the focus or before the verb modifier (Kiss 2004: 105). Cf. (Brody, Szabolcsi 2003).

satiate in Spec,FocP is +focus and the feature that relative pronouns satiate in Spec,QP is +quantifier. Thus, in conformity with Huggard's analysis, there is no prototypical *wh*-movement to Spec,CP triggered by +*wh*-feature. Just like Persian, Hittite is a focus fronting language: *wh*-phrases move to a dedicated focus position⁴⁷ and then, again like in Persian, they scramble to a higher position.

References

- Alboiu, G., V. Hill and I. Sitaridou, to appear. Discourse Driven V-to-C in Early Modern Romanian.
- Arregi K. 2001. Focus and Word Order in Basque, in: North East Linguistic Society 32, City University of New York and New York University (October 2001).
- Arregi K. 2002. Focus on Basque Movements. MIT PhD Dissertation, 2002.
- Arsenijević B. 2009. Clausal complementation as relativization. *Lingua* 119/1. 39-50.
- Beckman G. 1996. Hittite Diplomatic texts, Atlanta.
- Belletti, A. 2003. Aspects of the low IP area. L. Rizzi (ed.), *The structure of IP and CP: The cartography of syntactic structures 2*. Oxford. 16-51.
- Belyaev O. 2014a. Ossetic correlatives in typological perspective. PhD Dissertation Moscow State University.
- Belyaev O. 2014b. Anaphora in Ossetic Correlatives and the Typology of Clause Combining. P. Suihkonen, L.J. Whaley (eds.), *On Diversity and Complexity of Languages Spoken in Europe and North and Central Asia*. Amsterdam, Philadelphia. 275-310.
- Bhatt R., Dayal V. 2007. Rightward Scrambling as Rightward Remnant Movement. *Linguistic Inquiry* 38/2. 287-301.
- Brody M. 1990. Remarks on the Order of Elements in the Hungarian Focus Field. I. Kenesei (ed.), *Approaches to Hungarian*, vol. 3: Structures and Arguments. 95-121.
- Brody M., Szabolcsi A. 2003. Overt Scope in Hungarian. *Syntax* 6/1, 2003. 19-51.
- Büring D. 2009. Towards a Typology of Focus Realization. M. Zimmermann, C. Féry (eds), *Information Structure*. Oxford. 177-205.
- Butler J. 2004. Phase structure, Phrase structure, and Quantification. PhD Dissertation, University of York. 2004.
- Cheng L. 2003a. *Wh*-in-situ. Part I. *Glott International* Vol. 7/4. 103-109.
- Cheng L. 2003b. *Wh*-in-situ. Part II. *Glott International* Vol. 7/5. 129-137.
- Cheng L. 2009. *Wh*-in-situ, from the 1980s to Now. *Language and*

⁴⁷ Which is linearized differently in the two languages.

- Linguistics Compass 3/3 (2009). 767-791.
- CHD – H. Güterbock, H. Hoffner, and T. van den Hout (eds.), The Hittite Dictionary of the Oriental Institute of the University of Chicago. Chicago, 1989-.
- Cinque G. 1999. Adverbs and Functional Heads: A Cross-Linguistic Perspective. Oxford.
- Erschler D. 2012. From preverbal focus to preverbal “left periphery”. *Lingua* 122. 673-699.
- Etxepare R., Ortiz de Urbina J. 2003. Focalization. J. I. Hualde & J. Ortiz de Urbina (Eds.), *A grammar of Basque*. Berlin: Mouton de Gruyter. 460–516.
- Garrett A. J. 1990. The Syntax of Anatolian Pronominal Clitics. Ph.D. Diss., Harvard University.
- Garrett A. J. 1994. Relative Clause Syntax in Lycian and Hittite. *Die Sprache* 36. 29-69.
- Goedegebuure P. 2003. Reference, Deixis and Focus in Hittite. PhD Dissertation, University of Amsterdam, 2003.
- Goedegebuure P. 2009. Focus structure and Q-words questions in Hittite. *Linguistics* 47. 945-969.
- Goedegebuure P. 2014. The use of demonstratives in Hittite: deixis, reference and focus, *StBoT* 55, Wiesbaden.
- Goetze A. 1967. *Die Annalen des Mursilis*. Darmstadt.
- González Salazar J.M. 1994. Tiliura, un ejemplo de la política fronteriza durante el imperio hitita (CTH 89). *AuOr* 12. 159-176.
- Haegeman L. 2011. The syntax of MCP: Deriving the truncation account. Ms.
- Hagenbuchner A. 1989. Die Korrespondenz der Hethiter. 2, *THeth.* 16, Heidelberg.
- Hagstrom P. A. 1998. Decomposing Questions. MIT Ph.D. Dissertation.
- Hall D., I. Caponigro 2010. On the semantics of temporal *when*-clauses. *Proceedings of SALT* 20. 544–563.
- HED – J. Puhvel, *Hittite Etymological Dictionary*, Berlin – New York: Mouton de Gruyter, 1984-.
- Held W. H. Jr. 1957, The Hittite Relative Sentence. *Language* 33, 4/2.
- Hoffner H. A. Jr. 1995. About Questions. T. van den Hout, J. de Roos (eds.), *Studio Historiae Ardens*. Istanbul. 87-104.
- Hoffner H. A. Jr. 2003. The case against Ura-Tarhunta and his father Ukkura. W. Hallo (ed.), *The Context of Scripture*, vol. 3, Leiden-Boston. 57-60.
- Hoffner H. A. Jr. 2009. *Letters from the Hittite Kingdom*. Atlanta.
- Hoffner H. A. Jr., Melchert C. 2008. *A Grammar of the Hittite Language*. Pt 1. Winona Lake, Indiana.

- Huggard M. 2011. On *Wh*-(Non)-Movement and Internal Structures of the Hittite Preposed Relative Clause. S. W. Jamison, H. C. Melchert, and B. Vine (eds.), Proceedings of the 22nd Annual UCLA Indo-European Conference. Bremen: Hempen. 83-104.
- Huggard M. 2013. More on *kuit*: Causal clauses in Hittite. ECIEC 32, June 21-24 2013 (handout).
- Huggard, M. 2014, On Semantics, Syntax and Prosody: a Case Study in Hittite and other Indo-European languages, in: ECIEC 33, June 6-8 2014 (handout).
- İşsever S. 2009. A Syntactic Account of *wh*-in-situ in Turkish. S. Ay, Ö. Aydın, İ. Ergenç, S. Gökmen, S. İşsever & D. Peçenek (eds.), Essays on Turkish Linguistics. Wiesbaden. 103-112.
- Jayaseelan K.A. 2006-8. Topic, focus and adverb positions in clause structure. Nanzan Linguistics 4: Research Results and Activities 2006-2008.
- Kahnemuyipour A. 2003, Syntactic Categories and Persian Stress. Natural Language and Linguistic Theory 21. 333-279.
- Kahnemuyipour A. 2006. When *wh*-movement isn't *wh*-movement, in: Proceedings of the 2006 annual conference of the Canadian Linguistic Association.
- Kahnemuyipour A. 2009. The syntax of sentential stress. Oxford.
- Kayne R. 2010. Why Isn't *This* a Complementizer? Kayne, R. (ed.), Comparison and contrasts. Oxford. 190-227
- Kim A. 1988. Preverbal focusing and type XXIII languages, in: M. Hammond, E. Moravcsik and J. Wirth (eds.), Studies in Syntactic Typology, Amsterdam. 147-169.
- Kiss K. É. 1998. Identificational focus and information focus. Language 74. 245-273.
- Kiss K. É. 2004. The Syntax of Hungarian, Cambridge University Press.
- Kiss K. É. 2007. Topic and Focus: Two Structural Positions Associated with Logical Functions in the Left Periphery of the Hungarian Sentence. C. Féry, G. Fanselow and M. Krifka (eds.), Interdisciplinary Studies on Information Structure 6. 69-81.
- Komen E. 2007. Focus in Chechen. MA thesis, Leiden University.
- Kratzer A., J. Shimoyama 2002. Indeterminate Pronouns: The View from Japanese. Y. Otsu (ed.), The Proceedings of the Third Tokyo Conference on Psycholinguistics, Hituzi Syobo, Tokyo. 1-25.
- Kumar R. 2006. The syntax of negation and the licensing of negative polarity items in Hindi. London.
- Luraghi S. 1990. Old Hittite Sentence Structure, London.

- Luraghi S. to appear. Anatolian syntax: The simple sentence. J. Klein and M. Fritz (eds.), *Comparative Indo-European Linguistics*. Berlin and New York.
- Ljutikova E., Tatevosov S. 2009. The clause internal left edge: Exploring the preverbal position in Ossetian. *International Conference on Iranian Linguistics 3*, University of Paris III, Paris, 11-13 Sept. 2009.
- Manzini R. Savoia 2002, The nature of complementizers. *Rivista di Grammatica Generativa* 28, 2002. 87-110.
- Manzini R. 2012. The status of complementizers in the left periphery. Aelbrecht, Haegeman, Nye (eds.), *Main Clause Phenomena*. Amsterdam. 297-318.
- Manetta E. 2012. Reconsidering Rightward Scrambling: Postverbal Constituents in Hindi-Urdu. *Linguistic Inquiry* 43/1. 43-74.
- Megerdooian K., Sh. Ganjavi 2009a. Against Optional *Wh*-Movement. *Proceedings of WECOL 2000*, Vol. 12.
- Megerdooian K., Sh. Ganjavi 2009b. D-Linked *Wh*-Phrases and Focus-Fronting in Persian *International Conference on Iranian Linguistics 3*, University of Paris III, Paris, 11-13 Sept. 2009.
- Miller J. 2007. Muršili II's dictate to Tuppi-Teššub's Syrian antagonists. *Kaskal* 4. 121-152.
- Monte G.F. del 1986. Il trattato fra Muršili II di Ḫattuša e Niqmepa' di Ugarit. *OA* 18, Roma.
- Munshi S., Bhatt R. 2009. Two locations for negation. Evidence from Kashmiri. *Linguistic Variation Yearbook* 9. 205-240.
- Neu E. 1968. Interpretation der hethitischen mediopassiven Verbalformen, *StBoT* 5, Wiesbaden. Olsvay C. 2004. The Hungarian verbal complex: An alternative approach. K. É. Kiss, H. van Riemsdijk (eds), *Verb Clusters. A study of Hungarian, German and Dutch*, Amsterdam. 291-334.
- Otten H. 1981. Die Apologie Hattusilis III. Das Bild der Überlieferung, *StBoT* 24, Wiesbaden.
- Otten H. 1988. Die Bronzetafel aus Bogazkoy, *StBoT Beiheft* 1, Wiesbaden.
- Pecchioli Daddi, F. 2003. Il vincolo per i governatori di provincia, *SM* 14; *SH* 3, Pavia.
- Rizzi L. 1997. The fine structure of the left periphery. L. Haegeman (ed.), *Elements of Grammar*, Dordrecht. 281-337.
- Roos J. de 2005. Die Hethiter und das Ausland. D. Prechel (ed.), *Motivation und Mechanismen des Kulturkontaktes in der späten Bronzezeit*, E-othien 13, Firenze. 39-58.
- Shimoyama J. 2006. Indeterminate phrase quantification in Japanese. *Natural Language Semantics* 14. 139-173.

- Sideltsev A. 2014. Clause Internal and Clause Leftmost Verbs in Hittite. *AoF* 41/1, 2014, 80-101.
- Sideltsev A. to appear. When Left is right, ms.
- Singer I. 2002. *Hittite Prayers*, Atlanta.
- Skopeteas S., C. Féry, R. Asatiani 2009. Word Order and Intonation in Georgian. *Lingua* 119/1. 102-127.
- Skopeteas S., G. Fanselow 2010. Focus in Georgian and the expression of contrast. *Lingua* 120/6, 1370–1391.
- Slade B. 2011. *Formal and Philological Inquiries into the Nature of Interrogatives, Indefinites, Disjunction, and Focus in Sinhala and Other Languages*. PhD Dissertation. University of Illinois at Urbana-Champaign, 2011.
- Szabolcsi A. 2013. Quantification. N. Riemer (ed.), *Routledge Handbook of Semantics*. Routledge.
- van der Wal J. 2012. Why does focus want to be adjacent to the verb? *SLE*, 28-29 August 2012 Stockholm.
- Webelhuth G. 1992. *Principles and Parameters of Syntactic Saturation*. Oxford.
- Werner R. 1967. *Hethitische Gerichtsprotokolle*. StBoT 4, Wiesbaden.