

Krisch Thomas Publikationen

2009 On the “Syntax of Silence” in Proto-Indo-European In: Hinterhölzl, Roland und Svetlana Petrova (Hgg.) New approaches to word order variation and change in Germanic. Berlin: Mouton de Gruyter. S. 192-220.

.

On the “syntax of silence” in Proto-Indo-European

Thomas Krisch

Abstract

Using material from the ancient Indo-European languages Latin, Greek, Sanskrit and Hittite and insights of modern linguistic theory, this paper discusses two phenomena of ellipsis: gapping and object ellipsis. Both kinds of ellipsis are shown to be operative in these languages and can be reconstructed for Proto-Indo-European.

Gapping appears in the two variants of forward and backward gapping in the languages discussed. In accordance with observations in literature using generative theory, which tell us that backward gapping is only possible in SOV languages, we conclude that backward gapping is a further piece of evidence for an underlying SOV structure of these languages and of Proto-Indo-European. The fact that there exists forward gapping in all of the languages discussed is interpreted as a reflex of a V-to-C movement. Overt V-to-C-movement is only attested in Latin, Greek and Sanskrit and not in Hittite, though. This fact is interpreted as a Hittite innovation, forward gapping being a remnant of Proto-Indo-European V-to-C-movement in this language.

Object ellipsis operates in forward direction and depends on factors of functional sentence perspective.

1. Introduction¹

This paper deals with some aspects of the “syntax of silence” (ellipsis) in Indo-European. There are not many investigations into this phenomenon for ancient Indo-European languages and also for modern languages there is still much work to be done. During the last decades, Generative Grammar, though, has made some substantial contributions to our understanding of ellipsis where it is syntactically conditioned. The moderate aims of the present paper are to discuss some theoretical issues, to describe some phenomena appearing in ancient Indo-European languages (AIELs) and to reconstruct some elliptical constructions for Proto- Indo-European (PIE).

In this paper, I leave aside the ubiquitous ellipsis of the verb “to be” in AIELs and refer to Karl Praust’s recent illuminating paper (Praust 2003), where he reconstructs a PIE (phonologically) silent injunctive of the verb “to be”, which he sees reflected in ancient IE verbless nominal sentences. I here also leave aside the question of an ellipsis of the verb in case of verbs of movement with preverbs (cf. e.g. Krisch 1984: 93-94) in AIELs. This paper also does not deal with the well known type of ellipsis in more or less lexicalized NPs of AIELs where the head (the N) is not expressed and an originally attributively used adjective is nominalized.²

2. Ellipses and implicatures

Ellipses are a performance factor of natural languages. Speakers and (to a little lesser degree) also writers of texts often use them. Speaker and hearer have the tacit knowledge that certain parts of utterances may remain unexpressed. Modern relevance theory claims that speakers/writers do not express truth values in a direct way but rather suggest truth values (“schematic logical forms” cf. Blakemore 2002: 77) to the hearer/reader who has to complete the utterance by deriving inferences if necessary.³ Speaker and hearer follow the principle of maximal relevance of the utterance in the context and the speaker as well as the hearer expect implicatures. Implicatures are involved even in seemingly complete utterances as in (1):

- (1) *Mein Schwager wohnt in München, aber seine Tante ist Ärztin in Wien.*
 “My brother-in-law lives in Munich but his aunt is a medical doctor in Vienna”

The meaning of this sentence contains the truth values of both sentences that form part of it. Thus, the sentence is only true iff the speaker’s brother-in-law lives in Munich and iff his aunt is a medical doctor in Vienna. But in addition to that, the hearer/reader can draw the implicature (activated by the conjunctive particle *aber* “but”) that there is some conflict between the utterance *Mein Schwager wohnt in München* “my brother-in-law lives in Munich” and *seine Tante ist Ärztin in Wien* “his aunt is a medical doctor in Vienna”, and the reader/hearer will worry about the reason of this conflict.⁴ This type of implicature triggered by the semantics of certain elements of speech has been called “conventional implicature” for the last 30 years.⁵ The other type of implicature (“conversational implicature”) is triggered by the context and by encyclopaedic knowledge. Cf. the much cited sentence in (2):

- (2) *Herr M. beherrscht seine Muttersprache und hat meine Lehrveranstaltungen regelmäßig besucht.* "Mr. M. has a command of his mother tongue and regularly attended my lectures".

If you utter this sentence in the context of an expert opinion to a scholarship this is a negative statement, namely Mr. M. does not have any other merits. If one sees the notions of *conventional implicature* vs. *conversational implicature* as poles of a continuum, our paper looks at examples which are nearer to the pole of conventional implicature.

3. Remarks on the history of generative research in ellipsis

The most influential researcher in this field has been John Robert ('Haj') Ross (e.g. Ross 1970). Among other things he introduced the notion of "gapping" to denote ellipsis of the verb caused by coordinate constructions. I adopt Richards' definition of gapping here: "Gapping involves ellipsis of a portion of the verb phrase, including the verb but excluding one or more VP-internal constituents" (Richards 1998: 158). The direction of gapping depends on the syntactic type. Backward gapping is only allowed in SOV languages (cf. (3c)), whereas forward gapping may appear in SVO (cf. the English examples in (3a)), SOV (cf. German subordinate clauses in (3b)) or VSO⁶ languages (cf. the Irish example in (3d)). Only SOV languages allow gapping in both directions (cf. (3b) vs. (3c)). In our examples the element(s) that can be gapped is/are put in deleted capital letters.

- (3) a. English (SVO)
John likes fish and Peter ~~LIKES~~ meat.
Max seemed to be trying to begin to make love to Harriet and Fred
~~SEEMED TO BE TRYING TO BEGIN TO MAKE LOVE~~ *to Sue.*
- b. German (SOV)
Ich weiß, dass die Kinder Fisch lieben und
I know that the children fish love and
die Eltern Fleisch ~~LIEBEN~~
the parents meat ~~LOVE~~
"I know that the children love fish and the parents (love) meat."
- c. *Ich weiß, dass die Kinder Fisch ~~LIEBEN~~ und*
I know that the children fish ~~LOVE~~ and
die Eltern Fleisch lieben.
the parents meat love
"I know that the children (love) fish and the parents love meat."

- d. Modern Irish (VSO) (cf. Steedman 2000:177)

<i>Chonaic</i>	<i>Eoghan</i>	<i>Siobhán</i>	<i>agus</i>	<i>CHONAIC</i>	<i>Eoghnaí</i>
Saw	Eoghan	Siobhán	and	SAW	Eoghnaí
<i>Ciarán</i>					
Ciarán					

“Eoghan saw Siobhán and Eoghnaí (saw) Ciarán”

Gapping thus seems to correlate with the directionality of verbal government. In languages with government to the right (SVO, VSO) only forward gapping is allowed, whereas SOV languages with government to the left show backward gapping. A subclass of SOV languages like German allow a verb before the object in some clause types (in German especially in main declarative clauses), cf. (4):

- (4) *Die Kinder lieben Fisch.*
The children love fish

In generative grammar, this characteristic has been explained by a movement of the verb from original position after its object inside the verb phrase (VP) into a position called “C(omplementizer) position” (cf. also 4.3). The result may be a structure like (4), which superficially looks like an SVO structure.⁷ By syntactic analogy (abduction⁸), then, the same gapping pattern as in SVO languages, namely forward gapping can be applied to these SOV languages if the verb in the first sentence of the conjoined sentences appears in final position (cf. (3b)).

4. Gapping as a phenomenon of Proto-Indo-European syntax

4.1. Examples from ancient Indo-European Languages

Gapping is, indeed, a type of ellipsis that can be traced back to the PIE language. Let us first look at some examples from AIELs.

A sentence with backward gapping that reoccurs in the Old Hittite⁹ ritual corpus a number of times is (5a). There likewise exists forward gapping in Hittite (cf. (5b)):

(5) Hittite

a. (backward ellipsis)

StBoT 12 (Neu 1970; Hittite thunderstorm ritual), Rs. III, 21'

GIŠ^DINNANA.GAL.GAL^{LÚ.MEŠ}hal-li-ri-e[š iš-]ha-mi-an-zi "The big Istar-instrument [probably a lyra, TK] (resounds), the priest-singers re-sound"

GIŠ ^D INNANA GAL.GAL	IŠHAMAI	LÚ.MEŠ	halliriesš
Istar-instrument big.big	RESOUNDS	priest-singer.NOM.PL	
išhamianzi			
resound.PRS.3PL			

b. (forward ellipsis)

StBoT 12 (Neu 1970; Hittite thunderstorm ritual), Rs. III, 38':

LUGAL-uš hu-u-up-pa-ri ši-pa-an-ti MUNUS.LUGAL-ša n[a-at-]ta
 "The king libates into a tureen, and the queen (does) n[o]t (libate)."

LUGAL-uš	hūppari	šipanti	MUNUS.LUGAL-ša
king.NOM.SG	tureen.LOC.SG	libate.3SG.PRS	queen-and[CLT.]
n[at]ta	ŠIPANTI		
not	LIBATES		

In Latin, too, one can observe backward and forward ellipses, cf. the examples (6a) and (6b):

(6) Latin

a. (backward ellipsis) (cf. Gaeta and Luraghi 2001: 95)

Caes. Bell.Gall. 1.40,13 (AcI in indirect speech, a speech of Julius Cesar in a war assembly)

suam innocentiam perpetua vita, felicitatem Helvetiorum bello esse perspectam. "(that) his [scil. Cesar's TK] selflessness (was to be seen) in (his) whole life, (his) success was to be seen in the war against the Helvetians"

<i>suam</i>	<i>innocentiam</i>	<i>perpetua</i>
his.ACC.SG.F.REFL	selflessness.ACC.SG.F.	continuous.ABL.SG
<i>vita</i>	ESSE PERSPECTAM	<i>felicitatem</i>
life.ABL.SG.	TO BE SEEN	success.ACC.SG.F
<i>Helvetiorum</i>	<i>bello</i>	<i>esse</i>
Helvetians.GEN.PL	war.ABL.SG	be.INF
<i>perspectam</i>		
seen.PTCP.PRF.PASS.ACC.SG.F		

b. (forward ellipsis)

Plaut. Mil. 990

Viden tu illam oculis venaturam facere atque aucupium auribus? "Do you see her making a hunt with her eyes and (making) a bird-hunt with her ears?"

Vide-n tu illam oculis venaturam facere atque
 See.2SG-Q you her eye.ABL.PL hunt.ACC.SG make.INF and
aucupium FACERE auribus
 bird-catching.ACC.SG. MAKE ear.ABL.PL

Also Ancient Greek provides attestations for both, backward and forward gapping, as the following examples illustrate:

(7) Ancient Greek**a. (backward ellipsis)**

Hdt. 2,56,1 (cf. Gaeta and Luraghi 2001: 105)

Ei alēthēos hoi Phoīnikes exēgagon tās hirās gynaikas kai tēn mēn autēōn es Libyēn, tēn dē es tēn Hellāda apédonto, ... "If the Phoenicians did in fact carry away the sacred women and (sell) one of them in Libya and sell one in Hellas, ..."

Ei alēthēos hoi Phoīnikes exēgagon tās hirās
 If truly the Phoenicians they.carried.away the sacred
gynaikas kai tēn mēn autēōn es
 women and this.ACC.SG.F EMPH of.them [GEN.PL] to
Libyēn ~~APÉDONTŌ~~ tēn dē es tēn
 Libya.ACC ~~SOLD~~ this.ACC.SG.F but to ART.ACC.SG.F
Hellāda apédonto
 Greece.ACC.SG.F sold.3PL.AOR.MID

b. (forward ellipsis)

Hdt. 2,180.2 (cf. Gaeta and Luraghi 2001: 100)

... Ámasis mēn gár sphi édōke chília styptēriēs tálanta, hoi dē en Aigýptōi oikéontes Hállēnes cíkosi mnéas ... for Amasis gave them a thousand talents' weight of alum, but the Greek settlers in Egypt (gave them) twenty minae (of silver)."

Ámasis mēn gár sphi édōke
 Amasis.NOM.SG EMPH for them.DAT gave.3SG.AOR
chília styptēriēs tálanta hoi dē
 thousand alum.GEN.SG talent.ACC.PL ART.NOM.PL.M but
en Aigýptōi oikéontes Hállēnes
 in Egypt.DAT live.PTCP.PRS.NOM.PL.M Greek.NOM.PL.M
~~SPHI—ÉDŌSAN~~ *eíkosi mnéas*
~~THEM—GAVE~~ twenty minae.ACC.PL.F

In (7b), one may observe two types of elliptical expressions gapping of the verb *édōsan* including one of its arguments and also the usual ellipsis of "silver" with the unit of measurement "Mnéa".

Vedic Sanskrit, too, shows gapping in both directions, cf. (8a) and (8b):

(8) Vedic Sanskrit

a. (backward ellipsis) (cf. Gaeta and Luraghi 2001: 96)

RV 6.75.2

dhánvanā gā́ dhánvanājīm jayema "with the bow (we want to win) the cows with the bow we want to win the battle."

dhánvanā gā́ JAYEMA dhánvanā
bow.INS.SG cow.ACC.PL.F WE.WANT.TO.WIN bow.INS.SG
ājīm jayema
battle.ACC.SG win.1PS.PL.OPT.PRS

b. (forward ellipsis)

RV 10.42.10

góbhiḥ țare māmatiḥ durévāḥ yávena kṣúdham puruhūta víśvām
"Through cows we want to overcome malignant helplessness, through corn (we want to overcome) all (kinds of) hunger, o much invoked one!"

góbhiḥ țarema ámatiḥ
cow.INS.PL overcome.1PL.OPT.PRS helplessness.ACC.SG.F
durévāḥ yávena TAREMA
malignant.ACC.SG.F corn.INS.SG WE.WANT.TO.OVERCOME
kṣúdham puruhūta víśvām
hunger.ACC.SG.F much.invoked.one.VOC.SG all.ACC.SG.F

4.2. Sloppy identity in ancient Indo-European languages

The Hittite example (5a) as well the Greek example (7b) show a phenomenon well attested in modern languages: the elliptical form does not need to be completely identical to its model. In (5a), the overt verbal form *išhamianzi* is a third person plural form but one has to recover a third person singular (*išhamai*) by conventional and conversational implicature. In (7b), the overt verbal form *édōke* by (conventional and conversational) implicature triggers a third plural form *édōsan* to be recovered. This phenomenon of only partial identity of the overt and the recovered element has been termed "sloppy identity" in the literature. (5a) and (7b) show that this property of ellipsis also existed in the AIELs.

4.3. Backward and forward gapping as a PIE phenomenon and SOV

The examples given above all belong to the four ancient Indo-European language families that are the most important ones for the reconstruction of PIE syntax¹⁰ (Anatolian, Italic, Greek and Indo-Aryan). They all show the same phenomena: backward and forward gapping. It is therefore safe to reconstruct both possibilities for the Proto-language. The question why PIE and the daughter languages allowed both directions of gapping may be answered by the predominantly SOV character of PIE (cf. also section 3. above)¹¹ and its daughter languages Hittite, Latin, Greek and Vedic Sanskrit and by the fact that there exists V to C movement in all of these languages (as in the German example (4) above) except Hittite, cf. the examples (7b) and (8b) above and the examples in (9) (the moved verb is put in bold letters):

(9)¹² a. Latin

Ter. Ph. 594–596

*vixdum dimidium dixeram, intellexerat / gaudebat, me laudabat. **quaerebat** senem, / dis gratias agebat ...* “I scarcely had said half (of it) he had understood. He was glad, praised me, looked for the old man, thanked the gods ...”

<i>me</i>	<i>laudabat,</i>	<i>quaerebat</i>	<i>senem</i>
me.ACC.SG	praise.3SG.IPF	look.for.3SG.IPF	old.man.ACC.SG

b. Greek

Il. 18, 476–477 (cf. also Krisch 2001: 169–171)

[... *thēken en akmothētō mégan ákmona. génto dē cheiri / raistēra kraterēn,*] *hetērēphi dē génto pyrágērēn* “[he [scil. Hephaistos, TK] set on the anvil-block a great anvil, he seized a massive hammer with one hand,] but with the other hand he seized the fire-tongs”

<i>hetērēphi</i>	<i>dē</i>	<i>génto</i>	<i>pyrágērēn</i>
with.the.other	but	seize.3SG.MID.AOR	fire.tongs.ACC.SG.F

c. Vedic Sanskrit

RV 1.85.7

viṣṇur yád dhāvad vīṣṇam madacyútaṃ váyo ná sīdann ádhi barhiṣi priyé “when Viṣṇu supported the bull reeling with excitement [scil. god Indra, TK], they [scil. the Marut, the storm-gods, TK] sat down like birds on the dear Barhis [i.e. the sacrificial grass, TK].”

<i>viṣṇur</i>	<i>yád</i>	<i>dha</i>	<i>āvad</i>	<i>vīṣṇam</i>
Viṣṇu.NOM.SG	when	EMPH	support.3SG.IPF	bull.ACC.SG.M
<i>madacyútaṃ</i>				
reeling.with.excitement.ACC.SG.M				

This point becomes clearer when one uses a generative model of description that I have applied to PIE several times in the last years.¹³ There are two main sentence structures (Figure 1) and (Figure 2) in the SOV-language PIE. If the verb is fronted to C-position (cf. (7b), (8b)) or if it remains in its original sentence final position in the first part of the sentence (cf. examples (5b), (6b)), then forward gapping can be applied in the second part of the coordinate construction. As pointed out in section 3. of this paper, I attribute this Janus-like behaviour of V in sentence final position to analogy (abduction). If the verb remains overt in sentence final position in the second part of the sentence, then only backward gapping can be triggered in coordinate constructions (examples (5a), (6a), (7a), (8a)). In Table 1 and Table 2 the arrows indicate the direction(s) of the possible ellipses.

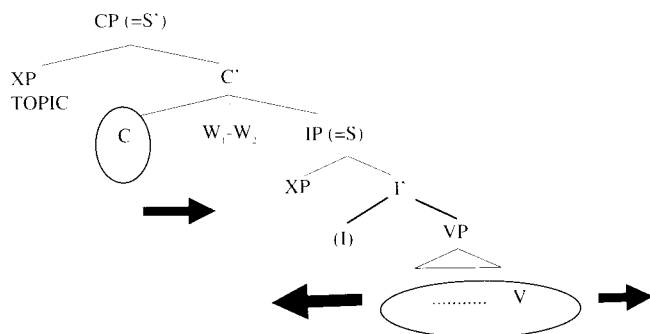


Figure 1. Structure of the PIE sentence with arrows indicating possible directions of ellipses

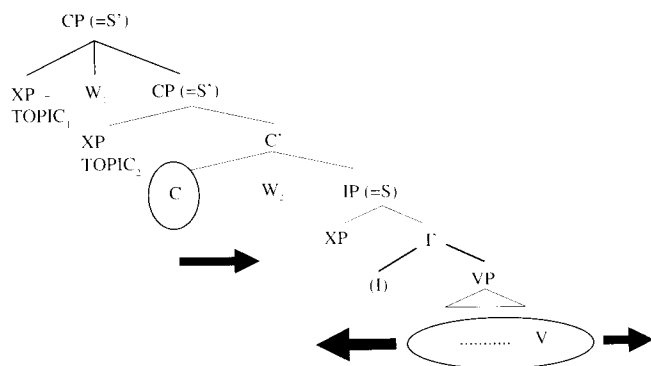


Figure 2. Structure of the PIE sentence with Chomsky adjunction and arrows indicating possible directions of ellipses

4.4. Reconstructing the Proto-Indo-European situation

I propose to reconstruct the situation of Latin, Greek and Vedic Sanskrit as the Proto-Indo-European state:

- a) PIE was an SOV language which allowed V-to-C-movement.
- b) PIE thus allowed not only for backward gapping (predicted by the direction of government in an SOV-language) but it allowed also for forward gapping. This peculiarity is reflected in Latin, Greek and Vedic Sanskrit.

How does Hittite fit into this picture? I do not know of any good case in Old Hittite which would force us to assume V-to-C movement for this language. Perhaps the possibility of a forward ellipsis (5b) in Hittite represents a last piece of evidence in Hittite that V-to-C-movement once existed also in this branch of Indo-European. If this interpretation is correct, it would provide us with an instance where Hittite, the oldest attested AIEL, exhibits syntactic innovation.¹⁴

5. Ellipsis and information structure

Apart from structural points of view (cf. sections 3. and 4. above), there exist a number of other approaches to deal with ellipsis in modern linguistic theory. I restrict myself here to approaches that interpret ellipsis as an epiphenomenon of the TOPIC-FOCUS distinction.¹⁵ This type of functional explanation in my view does not contradict structural views but supplements them. Kuno emphasizes the importance of TOPIC-FOCUS (/theme-rheme) for ellipsis in his famous "pecking order of deletion" (Kuno 1980:132) "Pecking order of deletion Delete order [sic! correct "older" TK] (less important) information first, and newer (more important) information last". Klein's formulation is a bit more precise:

- (10) Klein (1993: 791) "Genau jene lexikalischen Einheiten, die eine beibehaltene Topik ausdrücken, können p-reduziert werden" (those and only those elements that express maintained topic/thematic information may be p-reduced).¹⁶

Merchant (2001) starts from a different approach but goes in a direction similar to Klein's (1993) formulation. Merchant's focus condition on ellipsis (Merchant 2001: 38) reads "A constituent α can be deleted only if α is e-GIVEN" whereby e-GIVEN means (in a slightly simplified way) that

there is an antecedent for α which entails the deleted constituent by an existentially bound variable and vice versa. If you take the sentence in (11),

(11) *Abby sang.*

you can abstract an existentially bound variable of the form in (12)

(12) $\exists x \text{ sing } (x)$

In a sentence like (13) (with VP-ellipsis),

(13) *Abby sang because Ben did ~~SING~~.*

one can recover the verb ~~SING~~ because an existentially bound variable like the one in (12) may be abstracted (" \exists -type shifting"). This view makes it a bit easier to understand the possibility of "sloppy identity" (as exemplified by the Greek example (7b)). The verbal form *édōke* "he gave" (3Sg.Aor) appears in the first part of the coordinate construction and thus represents thematic material for the second part of the coordination. An interpretation of *édōke* analogous to the one in (12) would be something like "there exists an x who gives". This abstraction of a variable evidently is strong enough to make it possible to interpret the elided form as a plural (perhaps by thinking about the variable x as a collective expression). With an example taken from German, Klein (1993: 774) claims that for forward ellipses only the "lexical content" is important and not morphological marking.

For backward ellipsis, Klein (1993: 797) formulates the rule in (14):

(14) "Identisches Endstück in parallelen Konjunkten kann beim ersten Vorkommen p-reduziert werden" (the first instance of an identical piece of the final part in parallel coordinated constructions can be p-reduced).

In other words, Klein claims that there must be complete formal identity of the elided part and the overt part in backward ellipsis (cf. Klein 1993: 773). The ungrammatical German example (15) (Klein 1993: 774) confirms this claim:¹⁷

(15)	*weil	ich	Bier	TRINKE	und du	Wein
	because	I	beer	DRINK .1Sg.Prs.	and you	wine
			<i>trinkst</i>			
			drink.2Sg.Prs			

Our Vedic example [(8a), repeated as (16)], too, meets Klein's requirement in (14): the verbal form *jayema* "we want to win" which appears in the second part of the coordinate construction is exactly the form that is missing in the first part of the coordinate construction.

- (16) Vedic Sanskrit
 RV 6,75,2
dhánvanā gā́ dhánvanājím jayema "with the bow (we want to win) the cows with the bow we want to win the battle."

<i>dhánvanā</i>	<i>gā́</i>	<i>JAYEMA</i>	<i>dhánvanā</i>
bow.INS.SG	cow.ACC.PL.F	WE.WANT.TO.WIN	bow.INS.SG
<i>ājím</i>	<i>jayema</i>		
battle.ACC.SG	win.1PS.PL.OPT.PRS		

But our Hittite example for backward ellipsis [(5a), repeated as (17)] shows sloppy identity in backward gapping:

- (17) Hittite
 StBoT 12 (Neu 1970; Hittite thunderstorm ritual), Rs. III, 21'
 G)IŠ^DINNANA.GAL.GAL^{LÚ.MEŠ} hal-li-ri-e]š iš-]ha-mi-an-zi "The big Ištar-instrument [probably a lyra, TK] (resounds), the priest-singers resound"
 GIŠ^DINNANA GAL.GAL IŠHAMA^{LÚ.MEŠ} hallirieš
 Ištar-instrument big.big RESOUNDS priest-singer.NOM.PL.
 išhamianzi
 resound.PRS.3PL

This means that Klein's claim in (14) cannot be a universal one. Languages seem to differ in this respect. This can also be shown by the following Russian examples from Philippa Cook, taken from the description of a project of Lang (2006: 4):

- (18) (Russian)
 a. *Ja naučnuju sta'tiju ČITAJU a on detektiv*
 I scientific article ~~READ.1SG~~ but he detective story
čitaet.
 read.3SG
 b. *Ja *PIŁ / PILA vodu i Anna pila*
 I *~~DRANK.SG.M / F~~ water and Anna drank.SG.F.
vodku
vodka

Russian tolerates differences in person in backward ellipses (18a) but not differences in gender (18b). (18b) is only grammatical if *ja* "I" refers to a female person.

The exact conditions for the appearance of backward gapping in AIELs and in PIE await further investigation. A thorough analysis of a large corpus of several AIELs will be necessary for such a project.

6. Object deletion as a phenomenon of Proto-Indo-European syntax

This section deals with deleted objects in AIELs and with the possibility to reconstruct this type of ellipsis for the proto-language.

6.1. Latin data

Consider first the Latin example in (19), taken from "Amphitruo", a comedy by the greatest Roman comic playwright, Titus Maccius Plautus (254-184 B.C.):

- (19) Plaut. Amph. 387-392 (God Mercurius, having taken the shape of Sosia, a servant of Amphitruo, beats up Sosia, because Sosia_a (rightly) claims that he_a is Sosia. Mercurius wants Sosia_a to deny that he_a is Sosia)
Merc. Ego sum Sosia ille quem tu dudum esse aiebas mihi.
Sos. Obsecro ut per pacem liceat te alloqui, ut ne vapulem.
Merc. Immo indutiae parumper fiant, si quid vis loqui.
Sos. Non loquar nisi pace facta, quando pugnis plus vales.
Merc. Dic si quid vis, non nocebo. Sos. Tuae fide credo? Merc. Meae.
Sos. Quid si falles? Merc. Tum Mercurius Sosiae iratus siet.
 "Merc. I am this Sosia about whom you just told me that you are him.
Sos. I implore you that you allow me to speak to you in a friendly way, that you do not beat me up.
Merc. Well, there shall be armistice for a short time if you want to say anything.
Sos. I shall not speak unless peace has been made because you are the stronger one with your fists.
Merc. Say SOMETHING, if you want TO SAY anything, I shall not harm YOU. Sos. May I believe in your honesty? Merc. Yes [lit. mine]
Sos. What if you will deceive ME? Merc. Then Mercurius will be angry with Sosia."

It is evident from this example (cf. the deleted material in the translation) that the immediate context gives us hints to interpret the elliptical elements. Let us first take a closer look at line 391:

(20) Plaut. Amph. 391

<i>Dic</i>	(ALiquid)	<i>si</i>	<i>quid</i>	<i>vis</i>
Say.IMP.2SG	(SOMETHING)	if	anything.ACC.SG	want.2SG.PRS
Loqui.	<i>non</i>	Tibi	<i>nocebo</i>	
SAY-INF.PRS	not	YOU.DAT.SG	harm.1SG.FUT	

In (20), the imperative *dic* is construed without an object, an “ellipsis” provided for by the Latin lexicon (actually changing the semantics of *dic* to “speak”¹⁸), and with the sentential adjunct (a conditional clause) *si quid vis*. In verse 389 the verbal form *loqui* (which has to be supplemented in verse 391) appears in the phrase *si quid vis loqui* uttered by the same speaker (Mercurius). The verb *loqui* in verse 389 thus represents thematic, already known material and therefore neatly meets Klein’s criterion cited in (10). This type of verbal ellipsis resembles forward gapping in a sense but goes beyond it since the distance between the antecedent and the gap is bigger, there is no coordinate construction involved and the elliptic element is not the finite auxiliary *vis* but the infinite part of the verbphrase (*loqui*).

The Latin verb *nocēre* “harm” is normally construed with a direct object in the dative case¹⁹ “to harm somebody”. An “unspecific” reading (see also note 15) without the object in the dative case is achieved by using the figurae etymologicae *noxam nocēre* or *noxiam nocēre*, which mean something like “to harm a harm”.²⁰ Since this construction is not present in our case (20) we have to assume an ellipsis of the dative object ~~Tibi~~ here. This ellipsis is also based on given thematic material. All of the sentences uttered by Mercurius before our example (20) contain a pronoun of the second person singular either explicitly (cf. (19) verse 387) or implicitly [as “pro” in the verbal form *vis* in verse 389 and in the verbal forms *dic* and *vis* in the immediate context before *nocebo*, cf. also (19)].

In Latin, the dative object with the verb *nocēre* behaves like a normal direct object. As a good piece of evidence for that one can show that, in passive constructions, this dative may be changed into a nominative case:

(21) Vitr. 2,9,14

Larix ... ab suci vehementi amaritate ab carie aut tinea non nocetur ...

“The larch ... is not harmed by decay or by a caterpillar because of the enormous bitterness of its sap ...”

<i>Larix ...</i>	<i>non</i>	<i>nocetur</i>
larch.NOM.SG	not	harm.PRS.PASS.3SG

In verse 392 of (19), repeated as (22), the object of the verb *fallēs* (which normally governs an accusative case) is missing:

- (22) Plaut. Amph. 392
Quid si (ME) fallēs?
 What if (I.ACC.SG) deceive.FUT.2SG

Also this object can be easily retrieved by the context of a dialogue situation.²¹

The omission of direct objects is such a common phenomenon in Latin that quite complex constructions can be found, cf. (23). Here the verbs with missing objects are put in bold letters. The normal valency frames of these verbs are listed in (24).

- (23) Tac. Ann. 12.46,18 – 12.47,1 (cf. Luraghi 1997: 250)
*qua necessitate Mithridates diem locumque foederi accepit castelloque e-
 greditur. (47) Ac primo Radamistus in amplexus eius effusus simulare obse-
 quium, socerum ac parentem **appellare**; adicit ius iurandum, non ferro, non
 veneno **vim adlaturum**; simul in lucum propinquum **trahit** ...*
 "Under this compulsion, Mithridates accepted a day and a place for the
 completion of a contract and quitted [lit. "quits", TK] the fortress. (47) And
 first, Radamistus threw himself into his embraces, simulated [historical infi-
 nitive, TK] respect, called [historical Infinitive, TK] ~~HIM~~ father-in law and
 father, swore [lit. "swears", TK] an oath too that he would do no violence
~~TO HIM~~, neither by sword nor by poison. At the same time he drew [lit.
 "draws", TK] ~~HIM~~ into a neighbouring grove ..."

<i>socerum</i>		<i>ac</i>	<i>parentem</i>	EUM	appellare...
father-in-law.ACC.SG		and	father.ACC.SG	HE.ACC.SG.M	call.INF
<i>non ferro</i>		<i>non veneno</i>	Et	vim	
not sword.ABL.SG		not poison.ABL.SG	HE.DAT.SG.M	violence.ACC.SG	
adlaturum			ESSE ²²		
bring.ACC.SG.M. PTCP.FUT			BE.INF ...		
<i>simul</i>		EUM	<i>in lucum</i>	<i>propinquum</i>	
at the same time	HE.ACC.SG		in grove.ACC.SG	nearby.ACC.SG	
trahit					
draw.3SG.PRS					

- (24) a. **appellare** "call, refer to as" (+ acc (someone) + acc (as something/ someone))
 Tac. Ann. 4,52,19 *Afer primoribus oratorum additus, divulgato ingenio et secuta asseveratione Caesaris qua suo iure disertum eum appellavit.*
 "Afer was ranked among the foremost orators, through his publicly known ability and through the subsequent assertion of the emperor by which he called him 'eloquent by his own right'".
suo iure disertum eum appellavit
 own.ABL.SG right.ABL.SG eloquent.ACC.SG him.ACC.SG he.called
- b. **vim afferre** "do violence to" ([lit. *vim* (violence.ACC) *afferre* (carry.to)] (with dat.))²³
 Liv. 39,54,6 (an accusativus cum infinitivo construction)
oppidum quoque aedificare coepisse, quod indicium esset nec agro nec urbi ulli vim adlaturos venisse. "(they [scil. the Gauls, TK] said that) they also had started to build a town, and that would be an indication for the fact that they had not come in order to do violence to the country or to any town."
nec agro nec urbi ulli
 and.not country.DAT.SG and.not town.DAT.SG any.DAT.SG
vim adlaturos venisse
 violence.ACC.SG carry.to.PTCP.FUT.ACC.PL come.INF.PERF
- c. **trahere** "draw" + acc. (someone / something) + prepositional phrase (denoting the GOAL)
 Tac. 4,21,4
Et spreta potentia Augustae trahere in ius Urgulaniam domoque principis excire ausus erat. "He also dared to hand over Urgulania to the courts neglecting the power of Augusta and to summon (her) from the palace of the emperor."
trahere in ius Urgulaniam
 draw into law.ACC.SG.N Urgulania.ACC.SG.F

Thus, in the case of *appellare* in (23) a pronoun (3SG.M) in the accusative is missing, in the case of *vim afferre* in (23) there is an ellipsis of a pronoun (3SG.M) in the dative and in the case of *trahit* in (23), a pronoun of the accusative (3SG.M) is missing, all of which refer to the same person addressed by the form *eius* "his" (lit. "of him", GEN.SG.M of the anaphoric personal pronoun of the third person singular *is, ea, id*) in the immediate context before. *Eius*, again, (carrying thematic material, as an "anaphoric" pronoun) refers back to Mithridates in the sentence before. Thus, we have a neat "chain" of thematic material here, first producing an anaphoric element (*eius*) and then a series of null elements.

6.2. Greek data

The same type of object ellipsis is ubiquitous in Homeric Greek. Consider example (25). The verbs with missing objects are put in bold letters.

- (25) Hom. Il 5, 22-24 (Dares, a priest of the god Hephaistos, has two sons, Phegeus and Idaios. In the Trojan war, they fight against Diomedes. Diomedes kills Phegeus and would have killed Idaios as well, but Hephaistos rescues Idaios)

oudè gār oudè ken autòs hypékphyge kêra mēlainan, / all' Hēphaistos éryto, saōse dè nykti kalýpsas, / hōs dé hoi mē págchy gérōn akachémenos eíc.
 “Nay, he [Idaios, TK] would himself not have escaped the black goddess of death, but Hephaistos guarded **HIM**, rescued **HIM**, enfolding **HIM** in darkness so that the aged one [= Dares TK] might not be utterly fordone with grief”²⁴

<i>all'</i>	MIN	<i>Hēphaistos</i>	éryto,	<i>saōse</i>
but	HE.3SG.ACC	Hephaistos	guard.3SG.IPF.MID	rescue.3SG.AOR
<i>dè</i>	MIN	<i>nykti</i>	MIN	kalýpsas
and	HIM	night.LOC.SG	HIM	hide.PTCP.AOR.NOM.SG.M

Here, again, we are dealing with a thematic “chain”. The name *Idaios* is the explicit subject of the sentence before (Hom. Il. 5,20). The anaphoric pronoun *autós* refers back to this person. The following missing direct objects to the verbal forms *éryto*, *saōse*, and *kalýpsas* all refer back to the same person. The normal valency frames of the verbs with elliptic objects in (25) are exemplified in (26):

- (26) a. **ery(e)sthai** “guard” + acc. (someone)

Hom. Il. 13,554–555

péri gár ra Poseidáōn enosíchthōn / Néstoros hyiōn éryto “for mightly did Poseidon, the Shaker of Earth, guard Nestor’s son”

<i>péri</i>	<i>gár</i>	<i>ra</i>	<i>Poseidáōn</i>
all.around	for	indeed	Poseidon.NOM.SG
<i>enosíchthōn</i>		<i>Néstoros</i>	<i>hyiōn</i>
Shaker.of.Earth.NOM.SG		Nestor.GEN.SG	son.ACC.SG
<i>éryto</i>			
guard.3SG.IPF.MID			

- b. *sôzein* “rescue” + acc. (someone)

Hom. Il. 17,452

óphra *kai* *Automédonta* *saôseton* *ek* *polémoio* “that you two [scil. two horses TK] will also rescue Automedon out of the war”

óphra *kai* *Automédonta* *saôseton*
that also Automedon.ACC.SG.M rescue.2DU.FUT
ek *polémoio*
out.of war.GEN.SG

- c. *kalýptein* “hide” + acc. (someone/something)

Hom. Il. 4,461

tòn dè skótos ósse kalýpse “and darkness enfolded his eyes” (lit. and darkness enfolded him, the eyes”²⁵)

tòn dè skótos ósse kalýpse
he.ACC.SG.M and darkness.NOM.SG eye.ACC.DU hide.3SG.AOR

The null object construction is not allowed in the languages continuing Latin and Ancient Greek, viz. the Romance languages and Modern Greek.²⁶ On the other hand, the attestation of the “null object” type of ellipsis in Ancient Greek and in Latin make this construction a candidate for PIE reconstruction.

6.3. Vedic data

The data from Vedic Sanskrit fit in with what was just said about Latin (6.1.) and Greek (6.2.), cf. (27). The verbs with missing objects are put in bold letters.

- (27) RV 2,35,1 (cf. van der Wurff 1997: 345)

úpem asrkṣi vājayúr vacasyāṁ cáno dadhīta nādyó gíro me |
apām nāpād āsuhémā kuvít sá supésasas karati jóṣiṣad dhí ||

“Eager for reward I have poured out (my) eloquence. The child of the river may accept my songs [gíro] with favour. Will he, the rapidly rushing Apām Napāt [name of a god in the waters, lit. “offspring of the waters” TK], make ~~THEM~~ [scil. the songs, TK] well adorned? Will he enjoy ~~THEM~~ [scil. the songs, TK]?”²⁷

apām nāpād āsuhémā
water.GEN.PL offspring.NOM.SG.M rapidly.rushing.NOM.SG.M
kuvít sá supésasas ~~*ṭás*~~
INTERR he.NOM.SG.M well.adorned.ACC.PL.F ~~THEY.ACC.PL.F~~²⁸
karati ~~*ṭás*~~ *jóṣiṣad dhí*
make 3SG.AOR.SBJV ~~THEY.ACC.PL.F~~ enjoy.3SG.AOR.SBJV EMPH

There is thematic continuity of the elided null objects with the word for “songs” (*gíro*) in the first line of our example (27). The thematic “chain” is not as “dense” as it was in the Latin and the Greek examples (23) and (25). There is no “intermediate” stage with an overt pronoun in (27).

The normal valency frames of the verbs with elliptic objects in (27) are exemplified in (28):

- (28) a. **kar-** “make” + acc. (someone/something) + secondary predicate (adjective)
 RV 10,18,6
ihá tváṣṭā sujānimā sajōṣā dirghám āyuh karati jīvāse vaḥ “May Tváṣṭ [Indian god of creation, TK], giver of good birth, being gracious, make long the life-span for your life here.”
ihá tváṣṭā *sujānimā*
 here Tváṣṭ.NOM.SG.M giving.good.birth.NOM.SG.M
sajōṣā *dirghám* *āyuh*
 gracious.NOM.SG.M long.ACC.SG.N life.span.ACC.SG.N
karati *jīvāse* *vaḥ*
 make 3SG.AOR.SBJV life.DAT.SG. you.GEN./DAT.PL.CLIT
- b. **joṣ-** “enjoy” + acc. (something)²⁹
 RV 1,25,18
etā juṣata me gírah “He shall enjoy these songs from me”
etā *juṣata* *me*
 this.ACC.PL.F enjoy.3SG.INJ.MID I.GEN / DAT. SG (CLT)
gírah
 song.ACC.PL.F

6.4. Hittite data

In Hittite, there are not many examples for null objects. The specialist for Hittite syntax, Silvia Luraghi (2005: 244) remarks “Transitive verbs ... only very infrequently occur with N[ull] O[bject]s”. She brings an example from the relatively young (Neo-Hittite) Annals of Mursilis for this phenomenon (Luraghi 2005: 244) and mentions the Old Hittite law texts (Luraghi 2005: 242), where null objects occur. In addition to that I have found several attestations for this construction in the Old Hittite thunderstorm ritual. Three examples are cited in (29). The verbs with missing objects are marked with bold letters.

- (29) StBot 12 (Neu 1970, Hittite thunderstorm ritual)

RS. III, 44'-46'

^{LÚ}SÌLA.ŠU.DU₈ ^{NINDA}har-ši-in EM-SA GE₆ / LUGAL-i pa-a-i ta pár-ši-i[a
^{LÚ}] SÌLA.ŠU.DU₈ e-ip-zi ta LÚ ^{GIŠ}BANŠUR pa-a-i "The cupbearer gives
 sour dark bread to the king and he cuts-IT. The cupbearer takes-IT and he
 gives IT to the table servant ..."

^{LÚ}SÌLA.ŠU.DU₈ ^{NINDA}harši-n EM-SA GE₆
 Cupbearer³⁰ bread-ACC.SG.COMM sour.ACC black
 LUGAL-i pāi ta -AN
 king-DAT.SG give.3SG.PRS and IT-ACC.COMM.-(CLT)
 paršiia ^{LÚ}SÌLA.ŠU.DU₈ -AN
 cut.3SG.PRS.MID cupbearer IT-ACC.SG.COMM.-(CLT)
 ēpzi ta (AŠ)³¹
 take.3SG.PRS and (HE.NOM.SG.COMM.-(CLT))
 AN LÚ ^{GIŠ}BANŠUR pāi
 IT-ACC.SG.COMM.-(CLT) table.servant³² give.3SG.PRS

The first sentence of (29) shows the full valency of the verb "to give", *pije*-^{hhi} (appearing in the form *pāi*).³³ The last part of the cited text exhibits ellipsis of the accusative object with the same verb. In between these two sentences there are two further examples of null objects (elliptical accusative objects). In all of these cases there is thematic continuity with the word for "bread" in the first line of the cited text. Like the R̥gvedic example (27), the Hittite example in (29) does not show "intermediate" pronominalization.

In (30) one can find examples for the normal valencies of the verbs *paršje*- "cut" and *ēpp/ app*- "take, seize" in Old Hittite:

- (30) a.
- paršje*
-
- ^a
- "cut" + acc. (something)

StBot 12, (Neu 1970; Hittite thunderstorm ritual)

RS IV 25'

^{NINDA}har-ši-in-na pár-ši-ia "and he cuts bread"^{NINDA}haršinn-a páršiia

bread-ACC-and cut.3SG.PRS.MID

- b.
- ēpp/ app*
- "take, seize"

StBot 8 (Ottén / Souček 1969; Old Hittite ritual for the royal couple)

Vs. II 19

ma-a-an ^{MUŠEN}ha-a-ra-na-an hu-š[(u-ua-an-da-an ap-pa-an-zi)] ... "if one
 seizes [lit. "they seize", TK] a living eagle ..."

mān ^{MUŠEN}hārana-n hušuyanda-n app-anzi

if eagle-ACC.SG.COMM living-ACC.SG.COMM seize-3PL.PRS

6.5. Germanic data (?)

Like the modern Romance languages (cf. section 6.2. above), the modern Germanic languages are said to lack clear instances of object ellipsis, whereas this phenomenon is claimed to exist in older Germanic dialects.³⁴ But there are many questions open here. We can cite one instance from Old High German which suggests, in our view erroneously, that this older state of German could have been more permissive in this respect than modern German, namely the Straßburg oaths:

- (31) Old High German Straßburg oaths (Steinmeyer 1916=1971: 82)
 Oba Karl then eid, then er sinemo brudher Ludhuuige gesuor, gileistit, indi
 Ludhuuuig, min herro, then er imo gesuor, forbrihchit, ob ih inan es iruuen-
 den nemag ... "If Charles keeps the oath which he swore to his brother
 Ludwig, and Ludwig, my lord, (on his part) breaks ~~THE OATH/IT~~ which
 he swore to him, if I cannot prevent him from it,"

In Modern German the corresponding sentence with ellipsis would be ungrammatical:

- (32) Modern German
 *... und (wenn) Ludwig, mein Herr, ~~DEN EID/den~~, den er ihm schwor,
 bricht,

A grammatical rendering of (32) in Modern German would be und (wenn) Ludwig, mein Herr, **den** (Eid), den er ihm schwor, bricht (with an overt correlative pronoun (**den**) as head of the relative clause). The Romance text of the oath shows an overt pronoun in the accusative (*lo*) in the corresponding construction.³⁵ In my opinion, the lack of a (correlative) pronoun as head of a relative construction in the Old High German text (32) [*Ludhuuuig, min herro, then* (relative pronoun) *er imo gesuor*] could have been immediately influenced by Latin which showed such constructions.³⁶

6.6. Reconstruction

The examples taken from AIELs and discussed in sections 6.1–6.4. showed deletion of the object. This leads us to the conclusion that PIE had a rule that allowed deleting objects which refer back to already mentioned "thematic" material. This "null object" type of ellipsis thus is operating in a

forward direction and meets Klein's criterion cited in (10). Modern Indo-European languages like the Romance languages, the Germanic languages (also partly in their old attestations) and Modern Greek do not permit null objects any more (cf. sections 6.2. and 6.5).

7. Conclusions

- a) Gapping was possible in the ancient Indo-European languages and can be reconstructed for Proto-Indo-European. It operates backwards and forwards in these languages and in the protolanguage and it is determined by syntactic (basic word order) factors and by factors of functional sentence perspective.
- b) Object ellipsis was possible in the ancient Indo-European languages and in Proto-Indo-European. It operates in forward direction in these languages and in the protolanguage and it is determined by factors of functional sentence perspective.

Appendix: Abbreviations

AIEL=Ancient Indo-European Language; Amph.=Amphitruo; Ann.=Annales; AOR=Aorist; Ar.=Aristophanes; Bell. Gall.=De Bello Gallico; C=position of the "Complementizers"; Caes.=Caesar; CLT=clitic; COMM=genus commune; CP=Complementizer Phrase; EMPH=emphasizing particle; Hdt.=Herodotos; Hom.=Homer; Il.=Ilias; INJ=injunctive; INTERR=interrogative particle; IP=Inflection Phrase; IPF=imperfect; Liv.=Livius; MID=middle voice; OPT=optative. Mil.=Miles Gloriosus; PERF=perfect; Ph.=Phormio; PIE=Proto-Indo-European; Plaut.=Plautus; p-reduced=phonologically reduced; Ra.=Ranae; RV=R̥gveda; StBoT=Studien zu den Boğazköy-Texten; Tac.=Tacitus; Ter.=Terentius; TK=Thomas Krisch; TOPIC=Topic or contrastive focus position; TOPIC₁=topic position; TOPIC₂=focus-position; Vitruv.=Vitruvius; VP=verbal phrase; W=Wackernagel particle (W₁= enclitical sentence connectors; W₂= other enclitics); XP=any phrase

Notes

1. Interlinear glosses of examples follow the Leipzig glossing rules to be found at the following URL: <http://www.eva.mpg.de/lingua/resources/glossing-rules.php> (April 2, 2008). Additional abbreviations used in this article are listed as an appendix before the notes. Many thanks go to Jürg Fleischer for numerous suggestions, to Thomas Lindner for helping the author with the Straßburg oaths, to Hermann Bieder for confirming the Russian data in example (18), to an anonymous reviewer of this article for some useful hints and to Christina Katsikadeli and Stefan Niederreiter for proofreading the text. All remaining shortcomings remain in the responsibility of the author, of course.
2. Cf. e.g. the following examples for the "right hand" which show nominalization of the word for "right" and do not express the (feminine) word for "hand" (put in parentheses) lat. *dext(e)ra* f. (scil. *manus*), germ. *die Rechte* f. (scil. *Hand*), gr. *dexia*/ f. (scil. *cheír*); ved. *dákṣiṇa*- m. (scil. *hásta*-). A similar case is the ellipsis of the head noun in the following ancient Greek syntagm *és Haidou* "to the (houses of) Hades" (e.g. Ar. Ra. 69).
3. Blakemore (2002: 71): "Pragmatics does not simply enter when linguistic decoding fails; on the contrary, the linguistic system is subservient to pragmatic inference in the sense that it functions as an aid to the inferential system."
4. Of course, I am aware of the fact that the exact semantic interpretation of English *but* and German *aber* is more complex, as is clear from the analyses of Abraham (1979: e.g. 92) and Lang (1977: e.g. 168).
5. As is well known, the term "implicature" has been made popular in linguistics by Grice (1975). The concept of conventional implicature is viewed upon in a critical way by Bach (2006: in press), especially p. 14 (cited after <http://userwww.sfsu.edu/~kbach/TopTen.pdf> (seen April 2, 2008)). Bach wants to get rid of the notion of "conventional implicature" which is "counter-intuitive" for him because to his opinion the conjunction *but* states something rather than implicates something. I cannot follow this way of argumentation, though. By hearing *aber* "but" the hearer starts worrying and expects additional information.
6. Cf. also Maling (1972: 103).
7. Of course, not every case of V-to-C movement looks like an SVO structure. Consider the following German coordinate sentences where the first position in the sentences is occupied by an adverb:
Gestern liebten die Kinder Fisch, aber heute lieben sie
 Yesterday loved the children fish but today love they
Gemüse.
 vegetables
 "Yesterday the children loved fish but today they love vegetables".
8. Cf. e.g. Krisch (1984: 44–47); Krisch (1992: 157) with reference to Andersen (1973).

9. The Hittite texts are first given in their cuneiform spelling using the traditional transcription system. Sumerograms are given in capital letters, as determinatives they are written in upper case. Akkadograms appear in capital italicized letters and Hittite words appear in syllabic writing with a hyphen between the syllables (broad transcription). In glossed words the hyphens of syllable writing are removed ("narrow transcription") and if hyphens are used there, they indicate morpheme boundaries.
10. The importance of these daughter-languages for the syntactic reconstruction of PIE lies in the fact that they are the oldest attested AIELs and that we have a great amount of texts at our disposal from all of them.
11. Since backward gapping is only attested in SOV languages (cf. section 3.) this may in turn count as quite safe diagnostics for the status of these languages as SOV.
12. Cf. also Krisch (2001: 169–170); Krisch (1997: 305); McCone (1979: 224).
13. Krisch (1998, 2002, 2004).
14. Another case of syntactic innovation in Hittite is proposed in Krisch 1990: 72.
15. Cf. e.g. Kuno (1982); Klein (1993); Merchant (2001).
16. By p(honologically)-reduced Klein means that ellipsis takes place in the phonological component of grammar and that the elided material is still present in syntax.
17. Forward ellipsis, on the other hand allows sloppy identity of person in German. The sentence "weil ich Bier trinke und du Wein **TRINKST**" is grammatical (cf. Klein 1993: 774).
18. This type of ellipsis in the lexicon creates an "unspecific" reading of the verb and this type of ellipsis of an object normally is not counted as "null object" (cf. e.g. Luraghi 2005: 235). Therefore, in example (20), I have put the elided object (*SOMETHING*) into parentheses. We shall mainly deal with "referential null objects" (Luraghi 2005: 235) here, but, admittedly, it is not always clear in the texts whether one has to do with an "unspecific reading" (a possibility provided for by the lexicon) or with a "referential null object".
19. This dative object originally was an adjunct with "malefactive" meaning. It is a causative formation to the PIE root *nek- ("to get lost", "to vanish", "to die") with the original meaning "bring death to someone". Cf. LIV (2001: 452) with footnote 9.
20. Cf. e.g. tab. XII, 2a (Law of the Twelve Tables) *Si servus furtum faxsit noxiamve noxit ...* lit. "If a slave has committed theft or has harmed a harm ..."
21. The interpretation of *fallere* as an optionally intransitive verb with the meaning "afflicting harm" (an "unspecific reading") already provided for by the lexicon cannot be ruled out completely here. Therefore, in (22), I put the elided object (*ME*) into parentheses. Cf. also footnote 18.
22. This is an Acl-construction dependent from *adicit ius iurandum* "he adds an oath". *Adlaturum esse* is the periphrastic future infinitive of *afferre* in Latin.

23. *Afferre* and the form *adlaturus* (PART. FUT) are suppletive members of a paradigm. Our example (24b), taken from Livy exhibits this suppletive future participle like the Tacitus-example (23).
24. I do not translate *hoi* (Dat.Sg.M) "him" here in order to avoid confusion. *Hoi* refers to the old man.
25. The schema *kat' holon kai meros* ("Construction of the whole and the part") is a typical stylistically marked construction in Ancient Greek and in other AIELs. cf. e.g. Smyth (1963=1956=1920: 267): "... a verb may take two objects, one denoting the person, the other the part especially affected by the action."
26. For a more detailed analysis cf. e.g. Luraghi (2005: 246).
27. Geldner (2003=1951: 321) interprets both of the interrogative clauses of our translation as emphatic assertions. Hettrich (1988: 154) translates only one of our interrogative clauses as interrogative and the second one as emphatic.
28. The Sanskrit word *gīr-* "song" is a feminine noun.
29. There is also an example with instrumental case (RV 10,6,4) and one example with mixed cases (accusative and instrumental RV 5,39,4). The forms of this verb have to be analysed all as forms originally belonging to a middle paradigm, cf. Joachim 1978: 82.
30. Sumerograms (Logograms) often are not characterized morphologically and can serve several functions. In this case, the Sumerogram functions as a nominative case.
31. As a rule in Hittite "no subjects of transitive verbs are ever cliticized" (Luraghi 1990: 41). Therefore I put the deleted nominative clitic (AŠ) in parentheses.
32. In this case, the Sumerogram functions as a dative case (cf. also note 30).
33. The Hittite verbal forms are cited in the form in which they are cited in Oettinger 1979.
34. Cf. Luraghi (2005: 247–248) for Old English and Old Norse examples.
35. *Si Lodhuuigs sagrament, que son fradre Karlo iurat, conservat, et Karlus meos sendra de suo part ñ lostanit, ...*. Having consulted the facsimile [in Becker 1972: 28–29 and the facsimile to be found at the URL http://www.fh-augsburg.de/~harsch/germanica/Chronologie/09Jh/StrassburgerEide/eid_text.html (seen 3 April 2008) (Enneccerus 1897: 24–26, 34–36 non vidi)] I agree with the interpretation of the much discussed (cf. e.g. Elcock 1960: 335–336, especially footnote 1 on these pages) *ñ lostanit* in the cited passage as *ñ lo franit* [in the late Carolingian minuscule writing ductus the group *fr* may look very much like *st*; *franit* can be a writing variant for *fraint* "breaks" (Thomas Lindner, Salzburg, personal communication; cf. also Elcock 1960: 339)], whereby *ñ* (probably an abbreviation for the dative of *nomen*, "name") is a fill-in for a proper noun, in this case *Lodhuuige* (in the dative case). The Romance text can be translated as follows: "If Ludwig keeps the oath that he swore to his brother Charles, and Charles, my lord, breaks (*franit*) it (*lo*) to Ludwig (*ñ*), as far as he is concerned...". This text shows an accusative pronoun (*lo*) that refers back to *sagrament* "oath". There is no relative clause in the Romance text.

36. The construction without the pronominal head was possible in Latin, cf. Plaut. Mil. 367–368 PHIL(OCOMASIU) *Tun me vidisti?* SCE(LED)RUS) *Atque his quidem hercle oculis.* PHIL *Carebis OCVLLIS, credo, qui plus vident quam ~~id~~ quod vident* “PHIL You saw me? SCE And even, alas, with these eyes PHIL You will have to do without ~~THE EYES~~ which see more than ~~THAT~~ what they see” (cf. also Hoffmann / Szantyr (1965: 555–556). No Latin text is attested for the Straßburg oaths but one may assume that it existed, because the speech of Ludwig to the troops is handed down in Latin only (cf. also de Boor 1971: 48). Elcock (1960: 337–338) even goes so far as to reconstruct the Latin original of the text. If this assumption (not representing the current *communis opinio*, cf. Schmidt-Wiegand 1995: 379) is correct, then the use of the ellipsis in the Old High German text (without a correlative demonstrative pronoun) could have been immediately influenced by the Latin original.

References

- Abraham, Werner
1979 But. *Studia Linguistica* 23: 89–119.
- Andersen, Henning
1973 Abductive and Deductive Change. *Language* 49: 765–793.
- Bach, Kent
2006 The Top 10 Misconceptions about Implicature. In *Drawing the boundaries of Meaning: Neo-Gricean Studies in Pragmatics and Semantics in Honor of Laurence R. Horn*, ed. Betty Birner and Gregory Ward. Amsterdam/Philadelphia: John Benjamins. Cited after <http://userwww.sfsu.edu/~kbach/TopTen.pdf> (seen 2 April 2008).
- Becker, Siegfried
1972 *Untersuchungen zur Redaktion der Straßburger Eide*. Frankfurt a.M.: Peter Lang.
- Blakemore, Diane
2002 *Relevance and Linguistic Meaning: The semantics and pragmatics of discourse markers*. Cambridge: Cambridge University Press.
- de Boor, Helmut
1971 *Die deutsche Literatur von Karl dem Großen bis zum Beginn der höfischen Literatur. Mit einem bibliographischen Anhang von Dieter Haacke*. 8. Auflage. München: C.H. Beck'sche Verlagsbuchhandlung.
- Elcock, W. D.
1960 *The Romance Languages*. London: Faber & Faber Limited.
- Ennecerus, Magda
1897 *Die ältesten deutschen Sprach-Denkmäler in Lichtdrucken*. Frankfurt a.M.: F. Ennecerus.

Gaeta, Livio and Silvia Luraghi

2001 Gapping in Classical Greek Prose. *Studies in Language* 25: 89–113.

Geldner, Karl Friedrich

2003 Reprint. *Der Rig-Veda aus dem Sanskrit ins Deutsche übersetzt und mit einem laufenden Kommentar versehen*. Cambridge, Massachusetts and London, England: Harvard University Press. Original edition, Cambridge, Massachusetts: Harvard University Press, 1959.

Grice, H. Paul

1975 Logic and Conversation. In *Syntax and Semantics 3: Speech Acts*, eds. Peter Cole and Jerry L. Morgan, 41–58. New York/San Francisco/London: Academic Press.

Hettrich, Heinrich

1988 *Untersuchungen zur Hypotaxe im Vedischen*. Berlin/New York: Walter de Gruyter.

Hoffmann, J. B. and Anton Szantyr

1965 *Lateinische Syntax und Stilistik*. München: C.H. Beck'sche Verlagsbuchhandlung.

Joachim, Ulrike

1978 *Mehrfachpräsentien im R̥gveda*. Frankfurt a.M.: Peter Lang.

Klein, Wolfgang

1993 Ellipsis. In *Syntax: Ein internationales Handbuch zeitgenössischer Forschung*, eds. Joachim Jacobs, Armin von Stechow, Wolfgang Sternefeld and Theo Vennemann. 1. Halbband, 763–799. Berlin/New York: Walter de Gruyter.

Krisch, Thomas

1984 *Konstruktionsmuster und Bedeutungswandel indogermanischer Verben: Anwendungsversuche von Valenztheorie und Kasusgrammatik auf Diachronie und Rekonstruktion*. Frankfurt a.M.: Peter Lang.

1990 Das Wackernagelsche Gesetz aus heutiger Sicht. In *Sprachwissenschaft und Philologie: Jacob Wackernagel und die Indogermanistik heute*, eds. Heiner Eichner and Helmut Rix, 64–81. Wiesbaden: Ludwig Reichert Verlag.

1992 Analogische Prozesse in der lateinischen Sprachgeschichte. In *Latein und Indogermanisch: Akten des Kolloquiums der Indogermanischen Gesellschaft, Salzburg, 23.–26. September 1986*, eds. Oswald Panagl and Thomas Krisch, 155–181. Innsbruck: Institut für Sprachwissenschaft.

1997 Delbrücks Arbeiten zur Wortstellung aus heutiger Sicht. In *Berthold Delbrück y la sintaxis indoeuropea hoy: Actas del Coloquio de la Indogermanische Gesellschaft Madrid, 21–24 de septiembre de 1994*, eds. Emilio Crespo and José Luis García Ramón, 283–309. Madrid: Ediciones de la UAM and Wiesbaden: Ludwig Reichert Verlag.

- 1998 Zum Hyperbaton in altindogermanischen Sprachen. In *Sprache und Kultur der Indogermanen: Akten der X. Fachtagung der indogermanischen Gesellschaft Innsbruck 22.–28. September 1986*, ed. Wolfgang Meid, 351–384. Innsbruck: Institut für Sprachwissenschaft.
 - 2001 „Man kann sich ein Klavier ja auch um den Bauch binden“. In *Fremd und Eigen: Untersuchungen zu Grammatik und Wortschatz des Uralischen und Indogermanischen in memoriam Hartmut Katz*, eds. Heiner Eichner, Peter-Arnold Mumm, Oswald Panagl, Eberhard Winkler with collaboration by Roland Hemmauer, Susanne Knopp and Velizar Sadovski, 155–174. Wien: Edition Praesens.
 - 2002 Indogermanische Wortstellung. In *Indogermanische Syntax: Fragen und Perspektiven*, ed. Heinrich Hettrich with collaboration by Jeong-Soo Kim, 249–261. Wiesbaden: Ludwig Reichert Verlag.
 - 2004 Some aspects of word order and sentence type From Indo-European to New High German. In *ANALECTA HOMINI UNIVERSALI DICATA. Arbeiten zur Indogermanistik, Linguistik, Philologie, Politik, Musik und Dichtung: Festschrift für Oswald Panagl zum 65. Geburtstag*, eds. Thomas Krisch, Thomas Lindner and Ulrich Müller with editorial collaboration by Michael Crombach, Stefan Niederreiter, Helga Panagl and Ursula Pavičič. Vol I, 106–129. Stuttgart: Akademischer Verlag Hans-Dieter Heinz.
- Kuno, Susumo
- 1980 Functional Syntax. In *Syntax and Semantics 13: Current Approaches to Syntax*, eds. Edith Moravcsik and Jessica R. Wirth, 117–135. New York/London/Toronto/Sydney/San Francisco: Academic Press.
- Lang, Ewald
- 1977 *Semantik der koordinativen Verknüpfung*. Berlin: Akademie Verlag.
 - 2006 Parallelismus in der Grammatik: Reichweite, Status, Herkunft. Förderungsantrag (Antrag auf Gewährung einer Sachbeihilfe) P 6. Berlin: Humboldt-Universität. Cited after <http://www.zas.gwz-berlin.de/research/projects/p6.pdf> (seen April 3, 2008).
- LIV
- 2001 *Lexikon der indogermanischen Verben: Die Wurzeln und ihre Primärstammbildungen*, ed. Helmut Rix with collaboration by Martin Kümmel, Thomas Zehnder, Reiner Lipp and Brigitte Schirmer. 2d. revised and extended ed. by Martin Kümmel and Helmut Rix. Wiesbaden: Ludwig Reichert Verlag.
- Luraghi, Silvia
- 1990 *Old Hittite Sentence Structure*. London/New York: Routledge.
 - 1997 Omission of the Direct Object in Latin. *Indogermanische Forschungen* 102: 239–257.

- 2005 Null Objects in Latin and Greek and the Relevance of Linguistic Typology for Language Reconstruction. In *Proceedings of the Fifteenth Annual UCLA Indo-European Conference*, eds. Karlene Jones-Bley, Martin E. Huld, Angela Della Volpe and Miriam Robbins Dexter, 234–256. Washington D.C.: Institute for the Study of Man.
- Maling, Joan M.
- 1972 On gapping and the order of constituents. *Linguistic Inquiry* 3: 101–108.
- McCone, Kim Robert
- 1979 Aspects of Indo-European Sentence Patterns and Their Role in the Constitution of the Old Irish Verbal System. Oxford Phil. Diss.
- Merchant, Jason
- 2001 *The syntax of silence: Sluicing, Islands and the Theory of Ellipsis*. Oxford: Oxford University Press.
- Neu, Erich
- 1970 *Ein althethitisches Gewitterritual*. Wiesbaden: Otto Harrassowitz.
- Oettinger, Norbert
- 1979 *Die Stammbildung des hethitischen Verbums*. Nürnberg: Verlag Hans Carl.
- Otten, Heinrich and Vladimír Souček
- 1969 *Ein althethitisches Ritual für das Königspaar*. Wiesbaden: Otto Harrassowitz.
- Praust, Karl
- 2003 A Missing Link of PIE Reconstruction: The Injunctive of *H₁es- 'to be'. In *Proceedings of the Fourteenth Annual UCLA Indo-European Conference*, eds. Karlene Jones-Bley, Martin E. Huld, Angela Della Volpe and Miriam Robbins Dexter, 112–144. Washington D.C.: Institute for the Study of Man.
- Richards, Norvin
- 1998 The Full Pursuit of the Unspeakable. In *NELS* 28 (2): 153–168.
- Ross, John Robert
- 1970 Gapping and the order of constituents. In *Progress in Linguistics: A Collection of Papers*, eds. Manfred Bierwisch and Karl Erich Heidehoff, 249–259. The Hague/Paris: Mouton.
- Schmidt-Wiegand, Ruth
- 1995 ‚Straßburger Eide‘. In *Die deutsche Literatur des Mittelalters: Verfasserlexikon*, ed. Burghart Wachinger, Vol. IX, 377–380. Berlin/New York: Walter de Gruyter.
- Smyth, Herbert Weir
- 1963 Reprint. *Greek Grammar*. 2d. ed., revised by Gordon M. Messing. Cambridge: Harvard University Press. Original edition, Cambridge: Harvard University Press, 1956.

Steedman, Mark

2000 *The Syntactic Process*. Cambridge, Massachusetts: MIT Press.

Steinmeyer, Elias von

1971 Reprint. *Die kleineren althochdeutschen Sprachdenkmäler*. Dublin/Zürich: Weidmann. Original edition, Berlin: Weidmann, 1916.

van der Wurff, Wim

1997 Syntactic reconstruction and reconstructability. Proto-Indo-European and the typology of null objects. In *Linguistic Reconstruction and Typology*, ed. Jacek Fisiak, 337–355. Berlin/New York: Mouton de Gruyter.

Trends in Linguistics

Studies and Monographs 203

Editors

Walter Bisang

(main editor for this volume)

Hans Henrich Hock

Werner Winter

Mouton de Gruyter
Berlin · New York

Information Structure and Language Change

New Approaches to Word Order Variation
in Germanic

Edited by

Roland Hinterhölzl
Svetlana Petrova

Mouton de Gruyter
Berlin · New York

Mouton de Gruyter (formerly Mouton, The Hague)
is a Division of Walter de Gruyter GmbH & Co. KG, Berlin.

⊗ Printed on acid-free paper which falls within the guidelines
of the ANSI to ensure permanence and durability.

Library of Congress Cataloging-in-Publication Data

Information structure and language change : new approaches to word
order variation in Germanic / edited by Roland Hinterhölzl, Svet-
lana Petrova.

p. cm. — (Trends in linguistics. Studies and monographs : 203)

Includes bibliographical references and index.

ISBN 978-3-11-020591-6 (hardcover : alk. paper)

I. Germanic languages — Word order. 2. Germanic languages —
Syntax. I. Hinterhölzl, Roland. II. Petrova, Svetlana.

PD380.I54 2009

430'.45—dc22

2009011896

ISBN 978-3-11-020591-6

ISSN 1861-4302

Bibliographic information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie;
detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>.

© Copyright 2009 by Walter de Gruyter GmbH & Co. KG, D-10785 Berlin

All rights reserved, including those of translation into foreign languages. No part of this
book may be reproduced or transmitted in any form or by any means, electronic or mechan-
ical, including photocopy, recording or any information storage and retrieval system, with-
out permission in writing from the publisher.

Cover design: Christopher Schneider, Laufen.

Printed in Germany.

Table of Contents

Introduction

<i>Roland Hinterhölzl and Svetlana Petrova</i>	1
--	---

The role of information structure in the grammar

The verb-second property in Old High German: Different ways of filling the prefield

<i>Katrin Axel</i>	17
--------------------------	----

The role of information structure in word order variation and word order change

<i>Roland Hinterhölzl</i>	45
---------------------------------	----

OV languages: Expressions of Cues

<i>Þorbjörg Hróarsdóttir</i>	67
------------------------------------	----

Discourse relations and word order change

<i>Ans van Kemenade</i>	91
-------------------------------	----

Methodological problems of the information-structural analysis of data from historical text corpora

On the methods of information-structural analysis in historical texts:

A case study on Old High German

<i>Svetlana Petrova and Michael Solf</i>	121
--	-----

Paleographic clues to prosody? – Accents, word separation, and related phenomena in Old High German manuscripts

<i>Jürg Fleischer</i>	161
-----------------------------	-----

On the “syntax of silence” in Proto-Indo-European

<i>Thomas Krisch</i>	191
----------------------------	-----

**Information-structural categories in the main texts of the early
German inheritance**

Word order variation and information structure in Old High German:
An analysis of subordinate *dhaȝs*-clauses in Isidor

Eva Schlachter 223

Information structure and word order variation in the Old High
German Tatian

Svetlana Petrova 251

Verb placement and information structure in the OHG *Gospel Harmony*
by Otfrid von Weissenburg

Andreas Lötscher 281

Translating information structure: A study of Notker's translation of
Boethius's Latin *De Consolatione Philosophiae* into Old High German

Rosemarie Lühr 323

Aspects of word order and information structure in Old Saxon

Sonja Linde 367

Subject index 391