

Causal clauses in Old Indo-European languages

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Abstract

It will be shown, that in the Old Indo-European languages Old Indic and Ancient Greek the marking of causal relations with main clause structures to establish a subsidiary discourse relation takes precedence over the differentiation of the three types of causality in subordinate clauses, which are content-related, epistemic and speech-act-related and hence instances of factual, epistemic and speech act causality. Like in German, the main function in subordinate clauses is the expression of a reason for the propositional content of the main clause. But in subordinate clauses a change from factive to epistemic and speech-act related use is to be observed, while subordinate clauses of the German *weil*-verb2-type do not exist. The focus is on finite structures with causal semantics: Non-finite structures that interact tightly with the finite type are treated in Lühr (2007). The main object of research is to which extent the variation between main clauses and subordinate clauses in expressing causality is congruent with different modes of causality in Old Indic and Ancient Greek. With that we are dealing with representatives of the oldest language families of our cultural area. We can be brief in the case of Hittite, for in this language almost exclusively factual causality is denoted.

1 Preliminary Remarks

1.1 Kinds of modality

The investigation of causality requires a distinction of factual, epistemic and speech act causality. Examples are:

- (1) a. Fritz wurde bleich, weil er erschrocken ist. (proposition related use)
'Fred was pale because he is scared.'
b. Fritz muss krank sein, weil er so bleich ist. (epistemic use)
'Fred must be sick, for he is so pale.'
c. Fritz ist krank, weil du dich noch immer für ihn interessierst.
(speech act related use)
'Fred is sick, because you still are interested in him.'
(Frey 2015; cf. 1.3.)

The central question is whether in Old Indic and Ancient Greek factual, epistemic and speech act causality are denoted by different linguistic means – by word order, mood, conjunctions, adverbs, particles, etc. – or not. In the second case, context is decisive, and other text organizing principles than the differentiation of diverse categories of causality may be essential.

The three types of causality are connected to categories of modality. Since modality is considered to be a “super category more loosely structured than tense and aspect and probably belonging to a higher level of abstract” (Nuyts 2005), it is

to be examined how modality intervenes. Of the kinds of modalities debated in the literature especially epistemic modality and speech act modality are relevant here; cf. (1b) and (1c): epistemic modality involves knowledge, belief, or opinions about the factual status of propositions, i.e., the speaker evaluates the actuality of the situation according to his knowledge of situations in general and expresses the situation then as factual, probable, possible or non-factual.¹ The degree/strength of likelihood of the state of affairs can range from weak (epistemic possibility) via medium (probability) to strong (certainty) (Nuyts 2001; 2006: 6):

- (11) a. John might be home. [weak]
 b. John is probably home by now. [medium]
 c. John will be home by now. [strong]²

Furthermore, a subjective epistemic modality³ and an objective epistemic modality are discussed: in the layered structure of the clause, objective epistemic modality operates on the predication layer, while subjective epistemic modality operates on the propositional one (Ruiz Yamuza 2014 with further literature).

Speech-act modality is involved in speech acts like assertives, directives, commissives, expressives and declaratives. Interpreting a clause as directive or assertive speech act depends on background information, linguistic and non-linguistic. Generally, it is assumed that speech act modality does not appear in subordinate clauses (Nordström 2010: 16; 225, 279), but cf. (1c).

1.2 *weil*-verb final clauses and *weil*-verb2-clauses in German

A comparison of *weil*-verb final clauses and *weil*-verb2-clauses comes from Antomo (2010) (cf. Reis 1997; Thin-Mabrey 1982):

Table 1: The distribution of V2 and verb-final order

	<i>weil</i> -Vfin	<i>weil</i> -V2
within scope of negation	+	-
within scope of a correlative	+	-
within scope of a focus particle	+	-
within scope of the matrix interrogative operator	+	-
within c-command domain	+	-
position in the Vorfeld	+	-
prosodic integration	+	-

¹ In Ancient Greek verbal moods with or without modal particles are used (Ruiz Yamuza 2014).

² In Ancient Greek the related moods subjunctive and optative indicate such grades. Their relationship is explained in terms of being closer to (for the subjunctive), or farther from (for the optative) the real/factual pole expressed by the indicative (Ruiz Yamuza 2014).

³ Another feature of epistemic modality is that it has a strong tendency to bind to the moment of the utterance (Lyons 1977).

Though none of the characteristics on the left appears with *weil*-verb2-clauses, Antomo assumes that the following semantics is valid for *weil*-verb final clauses as well as for *weil*-verb2-clauses: The *weil*-clause expresses a reason for the propositional content of the main clause, whereby both arguments of the two-place predicate CAUSE are propositions. While *weil*-verb final clauses would have only this reading (cf. Antomo/Steinbach 2010; Uhnann 1998), in *weil*-verb2-clauses the conjunction also takes an epistemic argument as its second argument denoting a causal relation between a proposition and the speaker's attitude. Here, the *weil*-verb2-clause is interpreted on the illocutionary level and is evidence for the claim uttered in the associated clause. The third function of the *weil*-verb2-clause would be that of a speech act modifier: the speaker motivates the utterance of the preceding main clause, and the main clause is either an assertive speech act, an interrogative clause, or an imperative. Hence, V2 can be analyzed as a (grammaticalized) syntactic marker to signal 'at-issueness' (Antomo/Steinbach 2015). With *p* expressing a cause for the modifiee *q*, the following causal relations exist, whereby the semantic contribution of *weil* is the same for all three interpretations:

- a.) CAUSE (*p*, *q*)
 b.) CAUSE (*p*, MUST *q*)
 c.) CAUSE (*p*, ASSERT *q*)

Antomo thus considers *weil*-verb2-clauses to be an embedded root phenomenon which is associated with an assertive force potential of the clause.

However, Antomo's assumption that in German only *weil*-verb2-clauses allow for more interpretations than the verb final ones is controversial. Among others Holler (2008) and Frey (2011; 2015) give instances for:

- *weil*-VF clauses with content reading as central adverbial clauses
- *weil*-VF clauses with epistemic reading as peripheral adverbial clauses
- *weil*-VF clauses with speech act reading as disintegrated adverbial clauses besides:
- *weil*-V2 clauses with illocutionary force

No matter how it behaves in New High German, the core question is now with which of these contrary positions the Old Indic and Ancient Greek data are consistent. Do causal subordinate clauses and causal main clauses have a different meaning?

1.3 Examples for *weil*-clauses in Old Indic

Since the division of the German *weil*-clauses into central adverbials (as modifiers of the event structure) and peripheral adverbial clauses (as modifiers of the discourse structure) can be correlated with the discourse relations addressed in

Asher's/Lascarides' (2003) *Logic of Conversation* (Asher/Vieu 2005), the following analysis is carried out within this framework. As tested in the DFG-Projects *Informationsstruktur in älteren indogermanschen Sprachen* and *Informationsstruktur in komplexen Sätzen – synchron und diachron* Asher's and Lascarides' approach is highly suitable for the investigation of corpus languages. It will be proven that their distinction between coordinating and subordinating discourse relations is also crucial for the following investigation, especially the subordinating relation explanation (Reese et al. 2007). To avoid confusion with main clauses and subordinate clauses instead of "coordinating and subordinating discourse relation" we use the terms central and subsidiary discourse relation or foregrounding and backgrounding (cf. 6.).

An Old Indic example for the speech act request being motivated by a wish of the speaker which is also formulated as a request is (1):

- (1) śātrūyatām ā bharā bhōjanāni //
enemy:GEN.PL.M PFX bring:PRS.IMP.ACT2SG stock(N):ACC.PL
 vadhēna dāyūm prā hi
weapon(N).INSTR.SG dasyū(N).ACC.SG PFX for
 cātāyasa / ...
drive away:PRS.IMP.MED2SG
 'Bring to us the stocks of our enemies! For [I wish]: drive the Dasyu away with your weapon ...'
 (RV V 4,5f)

The mood is in both clauses the imperative. The particle *hi* can be translated with German ,denn', English 'for'.⁵ It appears in the second position of the clause. Such clauses are a cross between main clauses and subordinate clauses. According to Delbrück the function of the particle *hi* when used with imperatives is an emphatic one. But *hi* like German *weil* always has the same meaning. An epistemic meaning is documented in (2). The preceding context is:

- (2) a. tāsyālabdhasya sā vāgāpacakrāma
 'While he was slaughtered, the voice went away.'
 sā mānorevā jāyām manāvīm praviveśa
 'It went into Mannus' wife Manavi.'
 tāsyai ha sma yātra vādantyai śṛṇvānti tāto ha smaiyāsurarakāsāni
 mṛdyānānāni
 'For when they listened to her speaking exactly in this moment the Asuras and Rakśasas were crushed.'
 yanti té hāsuraḥ sāmūdire
 'The Asuras went away saying.'
 (Manu.Manavi.15.07ff)

⁴ http://www.rosemarie-luehr.de/Projekte_DFG-Projekte.

⁵ The first imperative might equally as well be interpreted as motivation of content for the second request: 'bring us wealth! That is the reason why / To do so / Therefore, drive the enemy away!', paraphrasing: 'The reason why I ask you to drive the dasyus away is that you are supposed to bring me sustenance. However, the reason for an utterance is always situated in the *hi*-clause.'

The motivation of the epistemic attitudes⁶ towards the proposition follows. The first clause contains an evaluative adjective with the meaning 'worse'.⁷ Thus, an evaluation of the speaker is motivated (cf. Kang 1996; Lüthr 2007). This motivation is in the indicative.

- (2) b. itāh vai nah pāpīyah
from now on PART I.ACC.PL worse thing:NOM.N.SG
 sacate
pursue:PRS.IND.MED3SG more for human:NOM.F.SG
 vāk
voice(F):NOM.SG speak:PRS.IND.ACT3SG QUOT
 'From now on a worse thing pursues us, for the human voice speaks no longer.'
 (Manu.Manavi.16.04)

Another case is (3). It is an example for factual causality⁸ with the conjunction *yād*. The causal clause is a subordinate one in the indicative.

- (3) sā vai eśā āpobdhan
he:NOM.M.SG PART this:NOM.M.SG shackled:NOM.M.SG
 jāyate
be born:PRS.IND.MED3SG because warrior(N):NOM.SG
 'He is born as this shackled one, because he is a warrior.'
 (Taittiriya 76)

Since the causal clause provides a reasoning of the propositional content of the assertion, the following paraphrase is possible:

- (3') The reason why he is born as this shackled one is that he is a warrior.
 For a paraphrase of (1), however, an intermediary illocutionary level is needed (cf. Speyer 2011). In the *yād*-clause of (3) the finite copular 'to be' is lacking.

In sum, in Old Indic there are causal structures that comply textually with the German *weil*-V-final und *weil*-V2-clauses as well as with main clauses with the conjunction *denn*. Since also in Ancient Greek clauses exist that are comparable to the mentioned *weil*-clause types and *denn*-clauses, this language, too, is to be checked for similarities and dissimilarities between the Old Indic data attested to in (1) to (3).

In compliance with the records (1a) to (1c) and (1) to (3), for the following analysis we distinguish between factual causality, motivation of the uttered subjective-modal, epistemic and/or evaluating attitudes to the proposition and motivation of the illocutionary force (cf. Frey 2015). It is examined whether these three types of causality display means of expression in Old Indic and Ancient Greek that allow an analogous association to the German *weil*-verb final clause or to the German *weil*-verb2 clause. Are there linguistic differences or not?

⁶ According to Capelli (2005: 223): 'The label "cognitive attitudes" covers different subtypes: alethic, epistemic, deontic and bouletic attitudes.'

⁷ For those evaluations cf. Zillig 1982.

⁸ Pit (2003: 32) uses the term "content justification".

Cf. the paraphrase:

- (7') 'The reason that I ask the question "What has become of our friendship?" is that we walked together previously without hostility'

The German *weil*-clause (7'') could thus also be expressed by a German *weil*-V2-clause:

- (7'') *Wohin ist diese Freundschaft zwischen uns gekommen, weil wir vorher (ja) ohne Feindschaft?'*

A further motivation of a question by a causal clause containing the conjunction *yáds* is (8): cf. with interrogative pronoun *kin* ('what') and the verb in the indicative:

- (8) *kin ga āsa varuṇa*
what guilt(N):NOM.SG be:P.F.IND.ACT3SG Varuṇa(M):VOC.SG
jyeṣṭham yāt stotāram
greatest:ACC.N.SG because praiser(M):ACC.SG
jighāṃsasi sakhāyam
wish to kill:PRS.IND.ACT2SG friend(M):ACC.SG
 'Was the offense so very great, Varuṇa [I ask this], because you wish to smash a praise singer and companion?'
 (Hettich 1988: 416; but cf. Jamison/Brereton II, 991)

2.1.2 Ancient Greek

In Ancient Greek, speech act motivation occurs as main clauses with the particle *gār* (with indicative):

- (9) *sý de synthco kai moi*
you:NOM.SG but attent:PRS.IMP.MED2SG and I:DATSG
ómsson ē mén moi
swear:AOR.IMP.ACT2SG indeed really I:DATSG
próphōn épēsai kai
with forward mind:NOM.M.SG word(N):DATPL and
chetsin aréksēin ē gār
dead(F):DATPL aid:FUT.INF.FACT indeed for
ófonai ándra
be afraid:PRS.IND.MED1SG man (M):ACC.SG
cholósēmen hōs méga
anger:FUT.INF.FACT who:NOM.M.SG mightily
pánton Argeíon kratéel ...
all:GEN.M.PL Argive(M):GEN.PL rule:PRS.IND.ACT3SG

οὐ δὲ σὺνθεο καὶ μοι ἄμοσσον / ἢ μὲν μοι προφῶρον ἔρεσσι καὶ χερσὶ ἀπῆξεν / ἢ γὰρ ὀλομαι ἀνδρα χολωσέμεν, ὃς μέγα πάντων / Ἀργείων κραιεῖ καὶ οἱ πεθόντων Ἄγριοι. /
 'but be attend and swear that you will readily defend me with word and with might of hand: for I am afraid to anger a man who rules mightily over all the Argives ...'
 (Homer, *Iliad* I, 76ff.)

The speech act, being justified, is a request again. It contains the imperative *ómsson* 'swear'.

However, in Ancient Greek also subordinate *hōi*- and *hōs*-clauses are used as motivation of an illocution, for example of a question (with indicative):

- (10) a. *nēp̄yit' oudé ný pó per epephrásō*
fool:VOC.M.SG not now yet even think on:AOR.IND.MED1SG
hōsson aretōn eúchom'
how much better vaunt:PRS.IND.MED1SG I:NOM.SG
émēnai, hōti moi ménos
be:PRS.INF.FACT because I:DAT.SG strength(N):ACC.SG
isopharizeis.
match:PRS.IND.ACT2SG
ἠπῆρτι' οὐδὲ νῦν πῶς περ ἐπεφράσω ὄσσον ἀρετῶν / εὐχόμε' ἐγὼν
épevai, ὅτι μοι μένος ἰσοφροῖέεις.
 'Fool, have you not learned even yet how much mightier than you I laud myself to be? [I ask this question] because you match your strength with mine.'
 (Homer, *Iliad* 21, 410f.)

The question is a rhetorical one which comprises an indirect question introduced with the interrogative adverb *hōsson* 'how much'. The intermediary illocution-ary level 'I ask this question' must be inferred.

- (10) b. *ti pote légeis ὃ*
who:ACC.N.SG at some time say:PRS.IND.ACT2SG exclam
téknon hōs ou manthánō
child:VOC.SGN because not understand:PRS.IND.ACT1SG
τί ποτε λέγεις, ὃ τέκνον; ὃς οὐ μάθηθῶν.
 'What do you say, my child? [I ask this question] because I do not understand you'
 (Sophocles, *Philoctetes* 914)

In Ancient Greek, *hōti* and *hōs* are undoubtedly conjunctions; they are derived from the relative pronoun *hō-* and appear as well as *épei* (cf. 2.2.2.) at the front of the subordinate clause, while *gār* holds the second position of the clause in the main clause (cf. 5). *hōti*, *hōs*, *épei* and *gār* thus show a different word order distribution.

⁹ Conti (2014: 293) uses for *hōs* in such clauses the translation 'denn'.

2.2 Epistemic causality

2.2.1 Old Indic

With *hi*, the motivation of the choice of an expression is also documented. As an evaluation takes places such motivation belongs to epistemic causality. An example is (2). In the following record the choice of the word *adhah* 'below' is motivated. The copular is not expressed:

The preceding context is:

- (11) a. *yā hutā adhiśerate manuśyalokameva tābhijyati*
'Which [offerings] being sacrificed lie down through those he wins
the human world'
b. *adhah iva hi manuśyalokah*
below so to speak for human world(M):NOM.SG
'For the human world is, so to speak, below.'
(BrUpIII.1.64)

In (12) a motivation of the choice of the dual *yuvābhyām* 'for you both' is motivated by the clause, that Indra and Agni required remown in cooperation (the verb is in the indicative):

- (12) *yāvad: idām bhūvanam*
as vast:NOM.N.SG this:NOM.N.SG world(N):NOM.SG
vīśvam āsty uruvyācā
all:NOM.N.SG be:PRS.IND.ACT3SG wide-ranging:INSTR.M.SG |
varimātā gabhīrām tāvām:
expans(M):INSTR.SG deep:NOM.N.SG so vast:NOM.M.SG
ayām pātave sómo astv
this:NOM.SGM to drink Soma(M):NOM.SG be:PRS.IMP.IND3SG
āram indrāgnī mānase
quite Indra and Agni(M):VOC.DUAL soul(N):DAT.SG
yuvābhyām || cakrāthe hi sadhryān
you:DAT.DUAL2 make:PF.IND.MED2DUAL for united:NOM.N.SG
nāma bhadrān
name(N):ACC.SG good:ACC.SGN
'As vast as all this world is, wide-spreading in its expanse, deep, as vast this Soma shall be for your drinking, for you both, Indra and Agni, quite to your mind! [I call you both] For you two made your own joint name auspicious'
(RV I 108.2f)

(cf. Jamison/Brereton I, 108; Hettrich 1988: 184)

In (13) the word choice is explicitly addressed: cf. *cānu nāma* 'cherished name' (with indicative):

- (13) *nāsatyā me pitārā*
Nāsatyā(M):NOM.DUAL of me:GEN.SG father(M):NOM.DUAL
bandhupīcā sājāyām
asking for the relatives:NOM.M.DUAL relationship(N):NOM.SG
āśvinoś cānu nāma |
āśvin(M):GEN.DUAL beautiful:NOM.N.SG name(N):NOM.SG
yuvān hi śhó
you:NOM.DUAL for be:PRS.IND.ACT2DUAL
rayidāu no rayīnām
giving wealth:NOM.M.DUAL us:DAT.PL wealth(M):GEN.PL
'The Nāsatyas, asked about our kinship, are my fathers. Our cherished name is our common birth with the Aśvins, [I choose the expression 'cherished name'] for you are wealth-givers of wealth to us'
(RV III 54,16; Jamison/Brereton I, 542; but cf. Hettrich 1988:189)

2.2.2 Ancient Greek

In Ancient Greek, not only speech act causality but also epistemic causality is indicated with the particle *gár*:

- (14) *Poseidōn dé methēsei*
Poseidon(M):NOM.SG and set loose:FUT.IND.ACT3SG
hōn chōlon ou mēn gār ti
his:ACC.M.SG anger(M):ACC.SG not and for probably
dynēsetai antia pāntōn athanātōn
be able:FUT.MED.3SG against all:GEN.M.PL immortal:GEN.M.PL
akēti theōn eridainēmen
against their will god(M):GEN.PL contend:PRS.INF.FACT
oīos
alone:NOM.M.SG
Ποσειδῶν δὲ μεθέσει / ὃν χόλον· οὐ μὲν γάρ τι θυνήσεται ἀντία πάντων
/ ὄθανάτων δέκτρι θεῶν ἐριδανέμεν οἴος· /
'and Poseidon will let go his anger, for he will in no wise be able to contend alone against all the immortal gods and against their will.'
(Odyssee α 77ff)

The presumption that Poseidon will let loose his anger is in the future tense. The reasoning 'for he will in no wise be able to contend alone against all the immortal gods and against their will' appears in the future tense. Poseidon drives Odysseus away from his home. He is angry with Odysseus because of the Cyclops Polyphemus, who is the son of Poseidon. Offending him caused numerous delays in Odysseus' sea voyage home.

Particularly common are cases of motivation of evaluations in the rhetorical writings. The expression *málist'* *eudokimósksin* '[they] are the most renown' has to be motivated (with indicative):

- (15) *kai mén tòn ge palatòn*
and indeed the:GEN.PL.F PART ancient:GEN.PL.F
kathódōn haitai málist'
return(F):GEN.PL this:NOM.F.PL most
eudokimóusin hás
be of good repue:PRS.IND.ACT3PL which:ACC.PL.F from
tōn potōn akōōmen:
the:GEN.M.PL poet(M):GEN.PL hear:PRS.IND.ACT1PL
hoītoi gār ou mónon tōn
this:NOM.M.PL for not alone the:GEN.M.PL
gegenēmētōn tās kallistas hēmin
happened:GEN.F.PL the:ACC.F.PL best:ACC.F.PL we:DAT.PL
apaggéousin, allà kai par' hautōn
report:PRS.IND.ACT3PL but also from the:GEN.M.PL
kainás synthēasin
new:ACC.F.PL compose:PRS.IND.ACT3PL
kai mh̄n tōn γε παλατιῶν καθόδων αὐτῶν μάλιστ' εὐδοκίμοισιν ἐς παρὰ
τῶν ποιητῶν ἀκούομεν: οὗτοι γὰρ οὐ μόνον τῶν γερηνήμων τὰς
καλλίστας ἡμῖν ἀγγελῆλουσιν, ἀλλὰ καὶ παρ' αὐτῶν καινὰς
συνθέασιν.
 'Furthermore, of the returns [to their thrones by princes] of ancient times the most renowned are those of which we hear from the poets: for they not only chronicle for us those which have been most glorious, but also compose new [stories] of their own invention.'

(Isocrates, Evagoras 3,36)

But as well as in Old Indic, also subordinate clauses motivate evaluations in Ancient Greek; cf. the following clause, which contains at the same time a motivation of an evaluation with the conjunction *epei* and a motivation of a request with the particle *gār* (with indicative):

- (16) *autàr emoi gétras autika hetoinásate*
but I:DAT.SG prize(N):ACC.SG instantly bring:FOR.IMP.ACT2PL
óp̄h̄ra mh̄ ofos Argeiōn
in order to not as the only one:NOM.M.SG Argive (M):GEN.PL
agétrastos éō
without prize:NOM.M.SG be:PRSS.SUBJ.ACT1SG since but not

¹⁰ *epei* is usually considered only as a linking element between two speech acts, thus representing a main clause phenomenon (for the literature cf. Hackstein 2015). But this does not apply to the Iliad.

- éōike leitsete gār*
be proper:P.F.IND.ACT3SG see:PRS.IND.ACT2PL for
tó ge pantes
this:ACC.N.SG PART everyone:NOM.M.PL
hó moi gétras
who:NOM.N.SG I:DAT.SG NOM.SG prize(N):NOM.SG
étrchetai allēi
go:PRS.IND.MED3SG elsewhere
αὐτῶρ ἐμοὶ γέρας αὐτῷ ἐρουλάσαστ' ὄφρα μὴ ὄσος / Ἀργεῶν ἀνέσαστος
ἔω, ἐρεῖ οὐδὲ ἔσσκε' / Λεύσσετε γὰρ τὸ γε πᾶνες ὃ μοὶ γέρας ἐργεταὶ
ἔλαλη.
 'But provide me with a prize of honour instantly, lest I as the only one of the Argives be without one, since that would not be proper. For you all see this, that my prize goes elsewhere.' (Homer, Iliade 1,118ff.)

The epistemic reading refers to a purpose clause, while the speech act-related reading motivates the request. To appear without a prize is inappropriate. It disappeared, consequently, a new one must be brought.

The motivation of a choice of an expression is also documented with the conjunction *epei* (with indicative):

- (17) *τούτοιςιν μὲν ταῦτα μέλει*
this:DAT.M.PL and this:NOM.N.PL be of interest:PRS.IND.ACT3SG
κίθαρῖς καὶ αοιδῆ θέια ἐπει
lyre(F):NOM.SG and song(F):NOM.SG carefree because
ἀλλοτρίον βίον
belonging to another:ACC.M.SG means of living(M):ACC.SG
νήπιον ἐδουσιν ἀνέρος ...
avenged:ACC.M.SG eat:PRS.IND.ACT3PL man(M):GEN.SG
τούτοισιν μὲν τούτῳ μέλει, κίθαρῖς καὶ αοιδῆ, / βεῖ, ἐρεῖ ἀλλότριον
βίον νήπιον ἐδουσιν, / ἀνέρος, ὃ δὴ πρὸς Λεὼν' ὄστεα τῶθεταὶ
ἄμβροθ' / κείμεν' ἐπ' ἡρείπου, ἧ εἰν ἄλι κῦμα κοιλῖδες.
 'These men care for things like these, the lyre and song, carefree, because they devour the livelihood of another, of a man whose white bones, it may be, rot in the rain as they lie upon the mainland, or the wave rolls them in the sea.'
 (Odyssee 1,159ff.)

According to the Odyssey, the suitors are only interested in music. They do not care (*theia*) how their livelihood is financed.

The motivation of a choice of an expression is also introduced by the conjunction *hōi*. In the following record the choice of the expressions *nēleās* 'merciless' and *ēlibatoi* 'jagged' is motivated (with indicative):

- (18) *nēleēs, ouk ára soi ge*
merciless:VOC.M.SG not then you:DAT.SG PART
patēr en hippóia
father(M):NOM.SG be:IMPFIND.ACT3SG horseman(M):NOM.SG
Pelēūs, oude Thētis mētēr
Peleus(M):NOM.SG and not Thetis(F):NOM.SG mother(F):NOM.SG
glaukē dé se
gray:NOM.F.SG PART you:ACC.SG
tikte thálassa
give birth to:IMPFIND.ACT3SG see(F):NOM.SG
pétrai t' alhatoí, hóti
rock(F):NOM.PL the:NOM.F.PL jagged:NOM.F.PL because
toi nōos esth
you:DAT.SG mind(M):NOM.SG be:PRS.IND.ACT3SG
apēnēs
hard:NOM.M.SG
ηῆλές, οὐκ ἄρα σοὶ γε πατήρ ἦν ἵπποτα Πηλεΐδης, / οὐδὲ θεΐς μήτηρ:
γλαυκὴ δέ σε τίκτη θάλασσα / πέτραι τ' ἠλίβατοι, ὅτι τοὶ νόοι ἐστὶν
ἀπηνές
 'O Merciless, horseman Pelēūs was not your father nor Thētis your mother, but the gray sea bore you and the sheer cliffs begot you, [I choose the expressions 'merciless' and 'sheer'], because you are so cruel in your thinking.' (Homer, *Iliad* 15.33ff.)

Furthermore, *hoi*-clauses serve as motivation of evaluations, in (19) for the choice of *aristēn boulēn* ... *pykinēs* 'best counsel ... shrewd' (with indicative):

- (19) *pollōn d' agronēōn tōi*
many:GEN.M.PL PART gathered:GEN.M.PL the:DAT.M.SG
peiseai hōs ken aristēn
follow:FUT.IND.MED2SG who:NOM.M.SG PART best:ACC.F.SG
boulēn bouleūsai: mála dé
counsel(F):ACC.SG give advice:FUT.IND.MED2SG very PART
chreō pántas Achaiōts
need(F):NOM.SG all:ACC.M.PL Achaean:ACC.M.PL
esthēs kai pykinēs, hóti
good:GEN.F.SG and shrewd:GEN.F.SG because
dētoi egypthi nēōn
enemy:NOM.M.PL close ship(F):GEN.PL.F
kalousin pytā pollai:
kindle:PRS.IND.ACT3PL watchfire(N):NOM.PL many:NOM.N.PL
πολλῶν δ' ἐγρομένων τῶν πείσεων ὅς κεν ἀρίστην βουλήν βουλεύσῃ:
μάλα δὲ χρεῶ πάντας Ἀχαιοὺς ἐσθλῆς καὶ πυκνῆς, ὅτι ὄητοι ἐγρύθειν πυρῶν
καίλουσιν πυρὰ πολλὰ

'And when many are gathered together you shall follow the one who shall devise the wisest counsel. And all the Achaeans have need of counsel both good and prudent, [I choose the expressions 'good and shrewd counsel'] because they see the enemies hard by the ships kindling their many watchfires' (Homer, *Iliad* 9.74ff.)

In a difficult situation good advice is in demand.

Until now, we state that in Ancient Greek and Old Indic exactly the same conjunctions and particles are documented both in the motivation of speech acts and in the motivation of evaluations and that the motivating clauses are postposed.

2.3 Factual causality

2.3.1 Old Indic

Therefore, it is not a surprise that that in Old Indic and Ancient Greek all the same conjunctions and particles are also used in evaluations of a proposition; cf. with propositional *hi* and *gār* respectively (with indicative):

- (20) *vāco dīghaprasadmanīse*
word(N):NOM.SG Dīghaprasadman(M):LOC.SG
vājasya gōmatah /
nutrition(M):GEN.SG rich in cattle:GEN.M.SG
īse hi pivō
able:IND.PRS.MED3SG for food(M):ACC.SG
'visāsya dāvane
unempisoned:GEN.M.SG give:PRS.INFACT
 'A (single) word at (the place) Dīghaprasadman (providing a long seat [= ritual ground]) gives nutrition being rich in cattle. For it is able to give unempisoned food.' (RV 8.25.20) / (cf. Jamison/Breton II, 1082)

2.3.2 Ancient Greek

- (21) *nūn d' ainōs deidoika katà phrēna mē*
now but terribly fear:Pf.IND.ACT1SG in heart(F):ACC.SG that
se pareipēi argyropēza
you:ACC.SG win over:AOR.SUBJ.ACT3SG silver-footed:NOM.F.SG
Thētis thygātēr halioio
Thetis(F):NOM.SG daughter(F):NOM.SG of the see:GEN.M.SG
gētontos eertē gār soi ge
old man(M):GEN.SG at early dawn for you:DAT.SG PART
parēzato kal lābe
sit by:AOR.IND.MED3SG and clasp:AOR.IND.ACT3SG
gōiōn
knaē(N):GEN.PL

νῦν δ' αἰνῶς δειδονκα κατὰ φρένα μη σε παρέρτη / ἀργυρόρεξα Θέτις
 θυέτηρ δάλοιο γέροντος / ἑπὶν γὰρ σοί γε παρέξτρο και λάβε γούων
 'But now I fear terribly, that silver-footed Thetis, daughter of the old man
 of the sea, has beguiled you; for at early dawn she sat by you and clasped
 your knees.' (with indicative) (Homer, *Iliad* 1,555ff.)

And with the Old Indic subordinating conjunction *yád* cf. example (3) above.

3 Special status of factual causality

3.1 Clause prepositioning

However, two differences must be noted. Though postposition prevails (Hettrich 1988: 414), subordinate causal clauses motivating a propositional content can be placed at the left periphery of the matrix clause (with indicative):

- (22) *yát* nú *eáni* *evá ajināni* *mṅgēsu*
since now this:NOM.N.PL just skin(N):NOM.PL deer(M):LOC.PL
bhāvanti *átha éśām* *pṣtīñ*
be:PRS.IND.ACT3PL then this:GEN.M.PL rib(F):ACC.PL
apsīrya *pacāmahe*
break:ABS cook:PRS.SUB.MEDIPL
 'Since there are those skins on deer, we break their ribs and cook them'
 (Sataphatabrahmana (Keshin 15))

- (23) *hoti* *dé* *hē* *peithó*
since but the:NOM.FSG persuasion(F):NOM.SG
proisotisa *tōi* *lógōi* *kai*
sticking to:NOM.FSG the:DAT.M.SG discourse(M):DAT.SG and
tēn *psychēn* *etyposato*
the:ACC.FSG soul(F):ACC.SG shape:AOR.IND.MED3SG
hōpōs *ebouleto* *chrē*
how will:IPF.IND.MED3SG need(F):NOM.SG
mathēin *prōton* *mēn* *tois*
understand:AOR.INF.ACT first:ACC.N.SG indeed the:ACC.M.PL
tōn *meteōrolōgōn* *lógous* ...
the:GEN.M.PL astronomer(M):GEN.PL discourse(M):ACC.PL
ōti *δ' ἡ πειθὸ προσοίσα τῷ λόγῳ και τὴν ψυχὴν ἐτροπώσατο ὄρωσ*
éporōsato, chrē mathēin prōton mēn tois meteōrolōgōn lōgous ...
 'Since persuasion sticking to discourse shapes the soul at will, it is neces-
 sary, first, to understand the discourses of the astronomers ...'
 (with indicative) (Gorgias 29)

At this point, data also comes from Hittite. In Hittite, causal clauses regularly appear in front of the associated main clause. Example (22) shows topicalization in front of the conjunction:

- (24) A-NA MUNUS.LUGAL ku-it z[a-ank]i-la-tar
for queen(C):DATSG because penance(N):NOM.SG
SixSA-at *na -at-* *-za-*
be indicated by oracle:PRET.MED3SG and he:ACC.N.SG PART
GAM a-ri-ya-zi *na- at-*
below ask an oracle:PRS.ACT3SG and he:ACC.N.SG
-ši *GIM-an* *SixSA-ri* *mi- -kán*
he:DAT.C.SG how ask an oracle:PRS.MED3SG now PART
ZI DINGIR_{LM} *QA-TAM-MA* *KASKAL-ši* *da-ai*
soul deity:GEN.SG likewise way:LOC.SG put:PRS.ACT3SG
 'Because penance is indicated by oracle for the queen and investigated
 by oracle how it is investigated by oracle, she will reconcile the soul of
 the deity'¹¹ (Orakel KUB V 24+ I 43ff.)

3.2 Correlative

Being preposed the causal clause may also have a correlative in the following main clause (with indicative):

- (25) *yát* *ná ávedisam* *téna*
because not know:AOR.IND.ACT1SG the:INSTR.N.SG
ahimsisam
offend:AOR.IND.ACT1SG
 'Because I did not know you, therefore I have offended you'
 (Sataphatabrahmana 1.5.7. (Cyavana))
- (26) *yád* *enena* *ákhidat* *tásmát*
because this:INSTR.M.SG grasp:IPF.IND.ACT3SG therefore
khādirāh *yūpāh*
of Khadira wood:NOM.M.SG sacrificial post(M):NOM.SG
bhavati *khādirāh*
be:PRS.IND.ACT3SG of Khadira wood:NOM.M.SG
sphyvāh
spatula(M):NOM.SG
 'Because she grasps it with that one therefore the sacrificial post is of
 Khadira wood, the spatula of Khadira wood'
 (Sataphatabrahmana 3.6.12 (Soma))

¹¹ Zeilfelder (2002: 533f.). The meaning 'to reconcile' originated from 'to bring on the way'. For a similar interpretation cf. Hout (1995).

Here, two of the occurrence restrictions identified by Antomo/Steinbach (2010) appear, preposition of the causal clause and the use of a correlative.

3.3 Lexical differentiation

As opposed to the polysemous conjunctions, there is one conjunction in Ancient Greek only being used for the designation of motivation of propositions, namely *hoineka* 'because'. Example (27) contains also a correlative in the main clause (with indicative):

- (27) *hoineka* *dē* *nyn* *dion* 'Aleksandron
 because *PART* now noble:ACC.M.SG Alexander(M):ACC.SG
 Menelaos *nikēsas* *ethēlei*
 Menelaos(M):NOM.SG conquer:NOM.M.G war:PRS.IND.ACTISG
stygērēn *enē* *olkad'* *āgesthai*,
 withered:ACC.M.SG I:ACC.SG home lead:INF.PRES.MED
toineka *dē* *nyn* *deūro* *dolophroneūsa*
 therefore *PART* now *hithēr* *guilefil*:ACC.F.SG
 parētēs
stand up:AOR.IND.ACTISG

οὐνεκα ὅη νῦν ὄιον Ἀλέξανδρον Μενέλαος / νικίτας ἐθέλει στρυγερὴν
 ēiē oīkād' ēyesthai, / τοῦνεκα ὅη νῦν δεῦρο δολοφρονέουσα παρόεττης;
 'Because Menelaos has now conquered noble Alexander and wants to lead
 poor me to his home, is it for this reason that you have now come hither
 with guileful thought?'
 (Homer, Iliad 3,403ff.)

The meaning 'much because' (German 'deswegen', 'weil') moves then onto *hoineka* without correlative by introducing thus postponed motivation of propositions (with indicative):

- (28) οὐτά *me* *Tydeos*
 woman:IMPF.ACT3G I:ACC.SG Tudeus(M):GEN.SG
 hysōs *hyperhūmos* *Diomēdes*,
 son(M):GEN.SG high-spirited:NOM.M.SG Diomedes(M):NOM.SG
hoinek' *egō* *philon* *hūion*
 because I:NOM.SG dear:ACC.M.SG son(M):ACC.M.SG
 hypexēpheron *polēmoio*
 bear forth:IMPF.IND.ACTISG war(M):GEN.SG
 Aineian *hōs* *emol*
 Aineias(M):ACC.SG who:NOM.M.SG I:DAT.SG
 pāntōn *poly* *philtatōs* *estin*
 all:GEN.M.PL far dearest:NOM.M.SG be:PRS.IND.ACTISG
 'οὐτά με Τυδεός υἱός ὑπερβήσιος Διομήδης / οὐνεκ' ἐγὼ φίλον υἱὸν
 ὑπεξέφερον πολέμοιο Αἰνεΐαν, ὃς ἐπιτοὶ πάντων πολὺ φίλατατός ἐστιν.'

'Tydeus' son, high-spirited Diomedes, wounded me, for that I was bearing forth my dear son Aeneas from out the war, who is far the dearest of all men for me.'
 (Homer, Iliad 5,377ff.)

4 From factive to epistemic and speech-act related use

The nearly complete absence of lexical differentiation in the conjunctions of the three types of causality is due to the fact that in the Old Indo-European languages as well as in modern languages the development runs from factive to epistemic and speech-act related use (Wegener 1998: 46). So, all conjunctions and the particles Old Indic *hi* and Ancient Greek *gár* in the cited records point to those means of expression which originally denote factivity.

Ancient Greek *gár*, a composite of the particles *gé* and *ára*, identifies a clause as a factive claim:¹²

- (29) *ē* *gár* *ken* *deilos* *te* *kai*
 indeed *surely* *PART* coward:NOM.M.SG both *and*
 outdānos *kaleoimēn*
 unworthy:NOM.M.SG be called:PRS.OPTPASSISG
ei *dē* *soi* *pān* *ērgon*
 if *straightway* you:DAT.SG every:ACC.N.SG matter:ACC.N.SG
 hypēixomai *hōtī* *ken* *ēipēs*
 yield:AOR.SUB.MED3SG whatever *PART* say:AOR.SUB.AKT2SG
 ἢ γάρ κεν δειλός τε καὶ οὐτδάνος καλεσώμην / εἰ δὴ σοὶ πᾶν ἔργον
 ὑπείξομαι ὅτι κεν εἴρηγ;
 'Indeed, surely I would be called cowardly and of no account, if I am to
 yield to you in every matter that you say.'
 (Homer, Iliad 1,293ff.)

ēpei, an originally temporal conjunction, appears in indicative clauses, if the thing being said is represented as factive:

- (30) *autār* *epel* *r'* *eúxanto* *kai*
 then *when* *PART* pray:AOR.IND.MED3PL *and*
 outlochytas *probálonto*
 barley groats(F):ACC.PL sprinkle:AOR.IND.MED3PL
 autēysan *men*
 draw back:AOR.IND.ACT3PL *but*
 prōta *kai* *ēspāxan* *kai* *ēdeiran*
 first *and* *slaughter*:AOR.IND.ACT3PL *and* *flay*:AOR.IND.ACT3PL
 autār *ērei* *ῥ'* *eúganro* *kai* *oúlōgyros* *probádonro* / *autērusan* *mev* *prōtra*
kai *ēpōázan* *kai* *ēdeiran*

¹² With the aorist of unattainable wish and with the optative expressing an attainable wish the particle *gár* appears behind a conjunction (*ei gár* 'if only').

'Then, when they had prayed, and had sprinkled the barley grains, they first drew back [the victims' heads], and cut their throats, and flayed them' (Homer, *Iliad* A 458f.)

In clauses like (30) causal meaning can develop then:

- (31) Héktor epei me kat'
Hector(M):VOC.SG after/since I:ACC.SG according to
 aisan eneikesas oud' hypèr
swiftness(F):ACC.SG chide:AOR.IND.ACT2SG not over
 aisan tounekà toi
swiftness(F):ACC.SG therefore you:DAT.SG
 erèò sý de
 tell:PRS.SUBJ.ACT1SG you:NOM.SG PART PART
 sýntheo kal meu ákousson
hear:AOR.IMP.MED2SG and I:GEN.SG listen:AOR.IMP.ACT2SG
 'Εκτροπ έρει με κατ' αίσαν έπεικεσας ουδ' υπέρ αίσαν, / τουνεκά τοι
 'Hector, after/since you have chided me duly, and not beyond what is due, therefore will I tell you: you do take thought and hearken unto me' (Homer, *Iliad* 6,333f.)

In Old Indic, with *yád*-clauses there is also a causal meaning besides the temporal meaning (with indicative):

- (32) ásvyo váno abhavas
of horse:NOM.M.SG tail(N):NOM.SG become:IMP.F.IND.ACT2SG
 tád indra síté yát
 then *Indra*(M):VOC.SG top(N):ACC.DUAL when/since
 tvá pratyáhan
 you:ACC.G smite:IMP.F.IND.ACT3SG
 'You became a horse's tail, o Indra, when/since he struck his fangs at you' (RV 1,32,12; Jamison/Brereton 1, 135; Heitrich 1988: 336)

In contrast to these original temporal conjunctions Ancient Greek *épei* and Old Indic *yád*, the Ancient Greek conjunction *hóti* 'because' emerges from factive 'that' in the case of verbs of emotion (with indicative):

- (33) sý d' éndothi thymón hó t'
 you:NOM.SG PART inside heart(M):ACC.SG
 amyxeis chōóménos hó t'
gnaw:FUT.ACT2SG being indignant:NOM.M.SG that/because
 áriston Achaíon oudèn
 best:ACC.M.SG *Achaean*(M):GEN.PL nothing
 éteissas
 honour:AOR.IND.ACT2SG

σὺ δ' ἐνόηθι θυμὸν ἀμύξεις / χολόμενος ὁ τ' ἄριστον Ἀχαιοῶν οὐδέν
 έρισας.
 'But you will gnaw the heart within you, in anger that/because you did
 no honor to the best of the Achaeans.' (Homer, *Iliad* 1,243f.)

The etymological meaning of the Greek factive complementizer *óti*, however, is 'because, that', whereby in relative-correlative constructions the meaning '[the fact] that' arose (Rix 1979: 733–735).

And causal *kuit* in Hittite has its origins in factive clauses as:

- (34) ŠA ERIN^{MES} -ma-anu kuit-it
 of troops:GEN.PL but I:DAT.SG what:ACC.SGN
 ut-tar há-at-ra a-eš nu-anu
 matter(N):ACC.SG write:PRS.IND2SG PART I:DAT.SG
 ka-a kat-ti -mi ERIN^{MES} KUR.UGU
 here with I:LOC.SG troops:NOM.PL Upper Country:GEN.SG
 ERIN^{MES} KUR URU Iš-ju-u-pi-it-ta ku-iš-ki
 troop:NOM.PL Country Ishupitita:GEN.SG who:NOM.SGC
 na-an -da up-pa-aš-ši
 PART he:ACC.SGC you:DAT.SG send:PRS.IND1SG
 'Now as for the affair of troops about which you wrote to me, the soldiers of the Upper Country and the troops of the country of Ishupitita (being) here with me, whoever (be), I will send them to you' (Hittite Letters from Masat = Höyüik (Mst. 75/61 Rs. 17ff.)) (Goedebuure 2003: 208; Lühr 1998: 223)

Finally, language comparison proves the particle Old Indic *hi* to be an originally confirming one, cf. Old Avestan *zī* 'for' indeed (German *ja*) 'however'. Correspondences appear as reinforcement of the negation: Old Indic *na-hi*, Greek *ou-chi*, *mé-chi* (Mayrhofer 1976: 592).

5 Main clause phenomena vs. non-main clause phenomena

The question now arises, why the Old Indo-European languages addressed did not develop a formal co-occurrence of the central, peripheral and disintegrated causal clauses comparable to the German *weil*-verb final and *weil*-verb-2-clauses. To answer this question, one has to take a look at the correspondences of the German *denn*-clauses first. These clauses have the following structure in Ancient Greek and Old Indic: In the second sentence position in Ancient Greek the stressed particle *gár* appears, in Old Indic the particle *hi* as well is not placed at the front of the clause, it occurs in the second sentence position, but also in other positions. A further difference between Ancient Greek and Old Indic is: while in Greek when stressing verbs no distinction is made between the main clause and the subordinate clause, Old Indic makes such a distinction. In clauses with the particle *hi* the same stress as in subordinate clauses applies. Hence,

since the Old Indic *hi*-clauses are not introduced by a conjunction, but are stressed like subordinate clauses they are intermediates between a subordinate clause and a main clause. But they differ from subordinate clauses primarily in that that they can be used as imperatives, i.e. with an illocutionary force, which is banned from subordinate clauses (Heitrich 1988: 179). *hi*-clauses as well as *gār*-clauses thus show main clause phenomena and are indeed comparable to German *denn*-clauses. But contrary to the development with German *denn*-clauses, *hi*- and *gār*-clauses show no traces of replacement by real subordinate clauses during the Vedic and Ancient Greek period.

The reason for this lies in the communication strategy *hi*- and *gār*-clauses represent. Two factors are essential here. The one that is the most important in triggering main clause phenomena is assertivity (Hooper/Thompson 1973; Green 1976). The other is based on the fact that because main-clause-like causal clauses are postposed they allow for weighting of information. The speaker uses asserted postposed causal clauses to strengthen disputed propositions (Diessel 2001), whereby the preceding main clause receives more communicative weight. Therefore, postposed causal clauses frequently serve as motivation of the preceding speech act assertion. Otherwise, by hearing the particle *hi* or *gār* near the beginning of the clause the addressee prepares himself that the speaker is willing to defend the assertion if challenged. Thus, *hi*- and *gār*-clauses fall into the domain of at-issuiness rather than the subordinate ones (Watson 2004: 70).

The case is different with German *weil*-verb2-clauses. They are more context-sensitive than the Old Indic and Ancient Greek *hi*- and *gār*-clauses respectively, because the conjunction *weil* also just introduces content-related and epistemic causal clauses. Thus, by choosing a *weil*-clause and not a *denn*-clause the speaker seems to be less committed to the defense of the truth of the uttered proposition or of his epistemic attitude or of a request, a question, etc. Another aspect concerning the speaker's part is that there is an intonation border between the conjunction and the sentence-initial position of the V2-clause which is often represented as intonation break (Antomo/Steinbach 2010: 9f). Consequently, the speaker can use this interruption to structure his reasoning mentally. *weil*-verb2-clauses offer so communication benefits to the speaker.

Returning to the Old Indic and Ancient Greek subordinate causal clauses the postposed ones correspond to the German *weil*-verb final clauses in the sense of Holler and Frey (cf. 1.1.). They are central adverbial clauses with a content reading or peripheral adverbial clauses with an epistemic reading or disintegrated adverbial clauses with a speech act reading and thus show different imbedding degrees. But they have in common that they do not have illocutionary force.

6 Summary

The determinations given above were carried out exclusively from their context as the study of causality in Old Indic and Ancient Greek has demonstrated. The most important result is that the causal main clauses or main-clause-like structures are part of the topmost text layer. As backgrounding material they provide the relevant context for foregrounding and represent a subsidiary discourse relation. For example, in Ancient Greek the particle *γάρ* also occurs with imperative verbal aspect in narratives introducing backgrounded information (de Jong 1957).¹³ As to be expected, in Old Indo-European languages as well as in current languages the illocutions of a text are structured according to central and subsidiary discourse relations (for terminology cf. 1.2.).

The distinction between causal main clauses or main-clause-like structures in Ancient Greek and Old Indic respectively on the one hand and subordinate causal clauses on the other hand displays a clear distribution of functions. For the speakers of these languages it was more important to signal the type of discourse relevance than to make a formal distinction within the subordinate clauses. Subordinate causal clauses represent no subsidiary discourse relations with regard to central discourse relations. They are part of the superordinate clause and hence belong to a lower text layer. Also in the case of speech-act related subordinate causal clauses the discourse relevance is downgraded.

As opposed to German, where the conjunction of the *weil*-V2-clauses is spreading at the expense of the conjunction *denn*, the investigated Old Indic and Ancient Greek causal subordinating conjunctions have not ousted the correspondence of the German conjunction *denn*, the particles Old Indic *hi* and Ancient Greek *gār*. Clear main clauses or main-clause-like structures denoting causality have thus survived and are lexically denoted.

With regards to the Old Indo-European subordinating causal conjunctions discussed, these words behave like the Early New High German causal conjunctions. As Speyer (2011) has shown, Bavarian *want(n)*, *darumb das* and the correspondences in the Swabian dialect and in East Middle German are used for propositional, epistemic and speech-act related causal clauses without distinction until 1500. Since 1500 as a new conjunction *weil* was added, an originally temporal conjunction, which – as was to be expected after the findings in Indo-European – developed a causal meaning and first came into content-related use.¹⁴ Consistent with this is that in all of the cited Old Indic and Ancient Greek records mood remains independent.¹⁵

¹³ According to Luraghi (1995) *gār* tends to occur with initial verbs, if the verb is in the imperative aspect which is another background strategy. She assumes that the basic feature of the information introduced by *gār* is “supplementary” (as already remarked in Denniston 1954) (Luraghi 2015).

¹⁴ For the distribution in New High German cf. Reis 2013.

¹⁵ In Classical Greek, also the oblique optative is found in causal clauses, but not frequently. It is called “the optative of secondary subordination” (Humbert 1960: 91).

Finally, it has to be noted that, apart from pre-posed content-related causal clauses and the conjunction Greek *hoineka* 'because' as the introduction of those clauses, there are no markers to distinguish the three types of causality. The epistemic and speech-act related meanings are derived ones which have to be deduced from the context.¹⁶ The studied Old Indo-European languages Old Indic and Ancient Greek are thus highly context-sensitive in relation to causal syntactic structures. Leaving epistemic and speech-act-related causal main clauses and main-clause-like structures aside it can be stated that the marking of 'at-issueness' with grammaticalized syntactic means at the syntax-semantics-pragmatics interface plays a minor role in the languages under discussion. Priority will be given to the indication of hierarchical discourse relationships.

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¹⁶ In the course of time a shift of *epet* into the epistemic or speech-act related domain took place.

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Syntax and semantics of causal *nachdem*-clauses in German*

Stefanie Pitsch

Abstract

The German subjunction *nachdem* is traditionally classified as a lexeme establishing a relation of temporal precedence. Still, there are instances of causal *nachdem* which are in need of explanation since they differ in their semantics as well as their syntax from temporal *nachdem*. This article discusses semantic and syntactic properties of *nachdem*-adverbials and proposes a modified analysis of the subjunction. I assume that *nachdem* denotes an underspecified relation of consequence and receives its interpretation depending on the grammatical aspect (perfective vs. imperfective) of the embedded predicate. While temporal *nachdem*-clauses denote a relation of consequence between times, causal *nachdem*-clauses denote a relation of consequence between propositions. This semantic difference is reflected in syntax: while causal *nachdem*-clauses exhibit properties of relative syntactic desintegration, temporal *nachdem*-clauses are highly integrated into their host clause. Assumptions about the internal and external syntax of temporal and causal *nachdem*-clauses are made that allow deriving not only the different syntactic adjunction sites, but also the discussed interpretations. It is assumed that not only the temporal, but also the causal interpretation arises compositionally given the semantics of *nachdem* and the grammatical properties of the embedded proposition.

1 Introduction

Temporal *nachdem* has widely been described in its semantic (Herweg 1991; Misan 2002; Schilder/Tenbrink 2001; von Stechow 2002; Steidle 2003, amongst others) as well as syntactic properties (Congio 2011; Frey 2011; Pasch et al. 2003, amongst others). While the theoretical accounts differ in details, all stipulate that *nachdem* can receive only a temporal interpretation, as will be shown later. Descriptive literature and traditional grammars share this assumption and typically paraphrase the relation established by *nachdem* as 'the embedded clause denotes a situation A which precedes the situation B denoted by the superordinate clause' (see Helbig/Buscha 2001; Fabricius-Hansen 2007, amongst others). Obviously, these accounts capture instances like (1) but not (2). The aim of the present paper is to propose an analysis of *nachdem* that accounts for both temporal and causal *nachdem*-adverbials.

- (1) Nachdem der Zug abgefahren war, erreichte Peter den Bahnsteig.
after the train left was reached Peter the platform
 'After the train left, Peter arrived at the platform.'

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