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:

(I) 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. (Ib) and (Ic): 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):

(II)   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 modality[3] 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. (Ic).

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; Thim-Mabrey 1982):

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

	weil-Vfin	*weil*-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; Uhmann 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 $(p, \text{MUST } q)$
    c.) CAUSE $(p, \text{ASSERT } q)$

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 indogermanischen Sprachen* and *Informationsstruktur in komplexen Sätzen – synchron und diachron*[4] Asher's and Lascarides's 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)   śatrūyatām   ā   bharā   bhójanāni //
        enemy:GEN.PL.M   PFX bring:PRS.IMP.ACT2SG stock(N):ACC.PL
        vadhéna   dásyum   prá   hí
        weapon(M):INSTR.SG   dasyu(M):ACC.SG PFX for
        cātáyasva / ...
        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 *hí* 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 *hí* when used with imperatives is an emphatic one. But *hí* like German *weil* always has the same meaning.

An epistemic meaning is documented in (2). The preceding context is:

(2)   a. tásyālabdhasya sā́ vāgápacakrāma
        'While he was slaughtered, the voice went away.'
        sā́ mánorevā jāyā́m manāvím právivéśa
        'It went into Manus' wife Manavi.'
        tásyai ha sma yátra vádantyai śṛṇvánti táto ha smaivā́surarakṣasāni
        mṛdyámānāni
        'For when they listenend to her speaking exactly in this moment the
        Asuras and Rakṣasas were crushed.'
        yanti té hā́surāḥ sámūdire
        'The Asuras went away saying:'   (Manu.Manavi.15.07ff.)

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[4] http://dwee.eu/Rosemarie_Luehr/?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 attitude[6] 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; Lühr 2007). This motivation is in the indicative.

(2)   b. itáḥ   vaí   naḥ   pā́pīyaḥ
        from now on PART I:ACC.PL   worse thing:NOM.N.SG
        sacate   bhū́yaḥ hí mānuṣī́
        pursue:PRS.IND.MED3SG   more   for human:NOM.F.SG
        vā́k   vádati   íti
        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 causality[8] with the conjunction *yád*. The causal clause is a subordinate one in the indicative.

(3)   sá   vaí   eṣá   ápobdhah
        he:NOM.M.SG   PART   this:NOM.M.SG   shackled:NOM.M.SG
        jāyate   yád   rājanyàḥ
        be born:PRS.IND.MED3SG   because warrior(M):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 *yád*-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 (Ia) to (Ic) 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?

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[6] According to Capelli (2005: 223): The label "cognitive attitudes" covers different subtypes: alethic, epistemic, deontic and boulomaic attitudes.
[7] For those evaluations cf. Zillig 1982.
[8] Pit (2003: 32) uses the term "content justification".

We start with speech act causality, followed by epistemic and factual causality (2.). Afterwards special forms of factual causality are considered (3.). As this kind of causality is the starting point for the epistemic and speech-act-related use, the basic semantics of the causal conjunctions and particles is described (4.). Finally, main clause phenomena of causal clauses are addressed together with their communication benefits (5.).

2 Types of causality

In developing a classification according to speech act, epistemic and factual causality we consider main clauses and main-clause-like structures first. Subordinate causal clauses follow. It is hereby determined whether there are formal differences in these three groups.

2.1 Speech act causality

2.1.1 Old Indic

As mentioned, in Old Indic wishes or requests of the speaker are motivated by *hí*-clauses; they are main-clause-like (cf. 1.3.):

(4) yuṣmā́kam   mitrāvaruṇā   práṇītau
    your:GEN.PL Mitra Varuṇa (M):VOC.DUAL guidance(F):LOK.SG
    pári   śvábhreva   duritā́ni
    PFX   cleft(N):ACC.PL=like difficulty(N):ACC.PL
    vṛjyām ‖   sugó   hí   vo
    avoid:AOR.OPT.ACT1SG   walkable:NOM.M.SG for your:GEN.PL
    aryaman   mitra   pánthā
    Aryaman(M):VOC.SG Mitra(M):VOC.SG path(M):NOM.SG
    anṛkṣaró   varuṇa   sādhúr
    thornless:NOM.M.SG Varuṇa(M):NOM.SG straight:NOM.M.SG
    ásti |
    be:PRS.IND.ACT3SG
    'Under your leadership, Mitra und Varuṇa, might I avoid difficulties like clefts in the earth. For your path is walkable, o Aryman, Mitra, and Varuṇa, harmless to men and leading straight'   (RV II,27,5)
                              (cf. Jamison/Brereton II, 440; Hettrich 1988: 186)

The wish appears in the optative: *vṛjyām* ('I may avoid'). In Vedic, the optative was used to express wishes or hopes.

In (5), the request is motivated by a reference to a custom:

(5) prātaryā́vāṇā   prathamā́
    at early morning-coming:ACC.M.DU   first
    yajadhvam   ... prātár hí yajñám
    sacrifice:PRS.IMP.MED2PL   early for sacrifice(M):ACC.SG
    aśvínā   dadhā́te
    Aśvins:NOM.DU   receive:PRS.IND.MED3DU
    'First sacrifice to the first ones, the two who journey in the early morning ... For in the early morning the Aśvins receive their sacrifice'
                    (RV II,27,5) (cf. Jamison/Brereton II, 78; Hettrich 1988: 185f.)

yajadhvam 'sacrifice' appears in the imperative.

Also the motivation of questions appears; cf. with the interrogative adverb *kuvít* 'whether' and the subjunctive *jóṣiṣad*:

(6) úpem   asṛkṣi   vājayúr
    PFX=PART   letflow:AOR.IND.MED.SG1   eager for spoil:NOM.M.SG
    vacasyā́m   cáno   dadhīta
    elequence(F):AKK.SG pleasure(N):ACC.SG take:PRS.OPT.MED.SG3
    nādyó   giro
    descending from the river:NOM.M.SG   song(F):ACC.PL
    me | apā́m   nápād
    of me:GEN.SG water(F):GEN.PL offspring(M):NOM.SG
    āśuhémā   kuvít sá
    horse driver(M):NOM.SG whether this:NOM.M.SG
    supéśasas   karati
    nicely decorated:ACC.F.PL   make:AOR.SUBJ.ACT3G
    jóṣiṣad   **dhí**
    delight: AOR.SUBJ.ACT3SG for
    'Seeking prizes, I have set loose my eloquence. The offspring of the rivers should take delight in my hymns. Whether this Apām Napāt, the horse driver, will decorate my songs? [I ask this question:] For he shall enjoy them.'   (RV II 35,1)
                    (Hettrich 1988: 153f.; but cf. Jamison/Brereton II, 35)

However, motivation of speech acts is also expressed by subordinate clauses, with the conjunction *yád* 'because':

(7) kvà   tyā́ni   nau   sakhyā́
    where this:NOM.N.PL of us:GEN.DUAL friendship(N):NOM.PL
    babhūvuḥ /   sácāvahe   **yád**
    become:PF.IND.ACT.3PL   follow:PRS.IND.MED1Dual   because
    avṛkám   purā́   cit
    without enmity:ACC.N.SG previously PART
    'Where have these companionships of ours come to be, [I ask this] because we walked together previously without hostility?'   (RV VII 88,5)
                                (but cf. Jamison/Brereton II, 995)

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 verkehr-
        ten früher (ja) ohne Feindschaft?'

A further motivation of a question by a causal clause containing the conjunction
yád is (8); cf. with interrogative pronoun *kím* ('what') and the verb in the indica-
tive:

(8)   kím   ga   āsa   varuṇa
       what guilt(N):NOM.SG   be:PF.IND.ACT3SG   Varuṇa(M):VOC.SG
       jyéṣṭhaṃ   **yát**   stotāraṃ
       greatest:ACC.N.SG   because   praiser(M):ACC.SG
       jíghāṃsasi   sákhāyam
       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?'   (RV 7,86,4)
                    (Hettrich 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
gár (with indicative):

(9)   sỳ   dè sýntheo   kaí   moi
       you:NOM.SG   but attent:PRS.IMP.MED2SG   and   I:DAT.SG
       ómosson   ễ   mén   moi
       swear:AOR.IMP.ACT2SG   indeed really I:DAT.SG
       próphrōn   épesin   kaì
       with forward mind:NOM.M.SG   word (N):DAT.PL   and
       chersìn   arḗksein   ễ   **gàr**
       deed(F):DAT.PL   aid:FUT.INF.ACT   indeed   for
       oíomai   ándra
       be afraid:PRS.IND.MED1SG   man (M):ACC.SG
       cholōsémen   hòs   méga
       anger:FUT.INF.ACT who:NOM.M.SG   mightily
       pántōn   Argeíōn   kratéei ...
       all:GEN.M.PL   Argive(M):GEN.PL   rule:PRS.IND.ACT3SG

σὺ δὲ σύνθεο καί μοι ὄμοσσον / ἦ μέν μοι πρόφρων ἔπεσιν καὶ χερσὶν
ἀρήξειν· / ἦ **γὰρ** ὀίομαι ἄνδρα χολωσέμεν, ὃς μέγα πάντων / Ἀργείων
κρατέει καί οἱ πείθονται Ἀχαιοί. /
'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 1,76ff.)

The speech act, being justified, is a request again. It contains the imperative
ómosson 'swear'.
     However, in Ancient Greek also subordinate *hóti*-and *hōs*-clauses are used as
motivation of an illocution, for example of a question (with indicative):

(10)   a. nēpýti'   oudé ný pṓ per epephrásō
            fool:VOC.M.SG   not   now yet even think on:AOR.IND.MED1SG
            hósson   areíōn   eúchom'   egṑn
            how much   better   vaunt:PRS.IND.MED1SG   I:NOM.SG
            émenai,   **hóti**   moi   ménos
            be:PRS.INF.ACT   because   I:DAT.SG   strength(N):ACC.SG
            isopharízeis.
            match:PRS.IND.ACT2SG
            νηπύτι' οὐδέ νύ πώ περ ἐπεφράσω ὅσσον ἀρείων / εὔχομ' ἐγὼν
            ἔμεναι, ὅτι μοι μένος ἰσοφαρίζεις.
            '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 *hósson* 'how much'. The intermediary illocution-
ary level 'I ask this question' must be inferred.

(10)   b. tí   pote   légeis   ṑ
            who:ACC.N.SG   at some time say:PRS.IND.ACT2SG   exclam
            téknon   hōs   ou   manthánō
            child:VOC.SG.N   because   not   understand:PRS.IND.ACT1SG
            τί ποτε λέγεις, ὦ τέκνον; ὡς οὐ μανθάνω.
            'What do you say, my child? [I ask this question] because I do not
            understand you'[9]   (Sophocles, Philoctetes 914)

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

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

2.2 Epistemic causality

2.2.1 Old Indic

With *hí*, 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 *adhaḥ* 'below' is motivated. The copular is not expressed:

The preceding context is:

(11) a. yā hutā adhiśerate manuṣyalokameva tābhirjayati
         'Which [offerings] being sacrificed lie down through those he wins
         the human world'

      b. adhaḥ   iva   **hi**   manuṣyalokaḥ
         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 *yuvábhyām* 'for you both' is motivated by the clause, that Indra and Agni required renown in cooperation (the verb is in the indicative):

(12) yávad: idám   bhúvanaṃ
      as vast:NOM.N.SG   this:NOM.N.SG   world(N):NOM.SG
      víśvam   ásty   uruvyácā
      all:NOM.N.SG be:PRS.IND.ACT3SG wide-ranging:INSTR.M.SG |
      varimátā   gabhīrám   távāṃ:
      expanse(M):INSTR.SG deep:NOM.N.SG   so vast:NOM.M.SG
      ayám   pátave   sómo   .   astv
      this:NOM.SG.M to drink Soma(M):NOM.SG   be:PRS.IMP.IND3SG
      áram   indrāgnī   mánase
      quite Indra and Agni(M):VOC.DUAL   soul(N):DAT.SG
      yuvábhyām || cakrắthe   **hí** sadhryàṅ
      you:DAT.DUAL2   make:PF.IND.MED2DUAL   for   united:NOM.N.SG
      nắma   bhadrám
      name(N):ACC.SG good:ACC.SG.N
      '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. *cắru nắma* 'cherished name' (with indicative):

(13) nắsatyā   me   pitárā
      Nāsatya(M):NOM.DUAL of me:GEN.SG   father(M):NOM.DUAL
      bandhupṛchā   sajātyàm
      asking for the relatives:NOM.M.DUAL relationship(N):NOM.SG
      aśvínoś   cắru   nắma |
      Aśvin(M):GEN.DUAL beautiful:NOM.N.SG name(N):NOM.SG
      yuvám   **hí** sthó
      you:NOM.DUAL for   be:PRS.IND.ACT2DUAL
      rayidaú   no   rayīṇắm
      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) Poseidáōn   dè   methḗsei
      Poseidon(M):NOM.SG and   set loose:FUT.IND.ACT3SG
      hòn   chólon   ou mèn **gár** ti
      his:ACC.M.SG anger(M):ACC.SG not and for probably
      dynḗsetai   antía   pántōn   athanátōn
      be able:FUT.MED.3SG against all:GEN.M.PL immortal:GEN.M.PL
      aékēti   theōn   eridainémen
      against their will god(M):GEN.PL contend:PRS.INF.ACT
      oĩos
      alone:NOM.M.SG
      Ποσειδάων δὲ μεθήσει / ὃν χόλον· οὐ μὲν **γάρ** τι δυνήσεται ἀντία πάντων
      / ἀθανάτων ἀέκητι θεῶν ἐριδαινέμεν οἷος. /
      'and Poseidon will let go his anger, for he will in no wise be able to con-
      tend 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' eudokimoũsin* '[they] are the most renown' has to be motivated (with indicative):

(15) kaì   mèn   tõn   ge   palaiõn
      and   indeed   the:GEN.PL.F   PART   ancient:GEN.PL.F
      kathódōn   haũtai   málist'
      return(F):GEN.PL   this:NOM.F.PL   most
      eudokimoũsin   hàs   parà
      be of good repute:PRS.IND.ACT3PL   which:ACC.PL.F   from
      tõn   poiētõn   akoúomen:
      the:GEN.M.PL   poet(M):GEN.PL   hear:PRS.IND.ACT1PL
      hoũtoi   **gàr** ou   mónon   tõn
      this:NOM.M.PL   for   not   alone   the:GEN.M.PL
      gegenēménōn   tàs   kallístas   hēmĩn
      happened:GEN.F.PL   the:ACC.F.PL   best:ACC.F.PL   we:DAT.PL
      apaggélousin,   allà   kaì   par'   hautõn
      report:PRS.IND.ACT3PL   but   also   from   the:GEN.M.PL
      kainàs   syntithéasin
      new:ACC.F.PL   compose:PRS.IND.ACT3PL

      καὶ μὴν τῶν γε παλαιῶν καθόδων αὗται μάλιστ' εὐδοκιμοῦσιν ἃς παρὰ τῶν ποιητῶν ἀκούομεν· οὗτοι γὰρ οὐ μόνον τῶν γεγενημένων τὰς καλλίστας ἡμῖν ἀπαγγέλλουσιν, ἀλλὰ καὶ παρ' αὐτῶν καινὰς συντιθέασιν.

      '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 *epeí* and a motivation of a request with the particle *gár* (with indicative):

(16) autàr   emoì   géras   autíka   hetoimásate
      but   I:DAT.SG   prize(N):ACC.SG   instantly   bring:AOR.IMP.ACT2PL
      óphra   mḕ   oĩos   Argeíōn
      in order to   not   as the only one:NOM.M.SG   Argive (M):GEN.PL
      agérastos   éō   **epeì**[10] oudè
      without pricze:NOM.M.SG   be:PRS.SUBJ.ACT1SG   since   but not

---

[10] *epeí* 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.

éoike   leússete   **gàr**
be proper:PF.IND.ACT3SG   see:PRS.IND.ACT2PL   for
tó   ge   pántes
this:ACC.N.SG   PART   everyone:NOM.M.PL
hó   moi   géras
who:NOM.N.SG   I:DAT.SG NOM.SG   prize(N):NOM.SG
érchetai   állēi
go:PRS.IND.MED3SG   elsewhere

αὐτὰρ ἐμοὶ γέρας αὐτίχ' ἑτοιμάσατ' ὄφρα μὴ οἶος / Ἀργείων ἀγέραστος ἔω, ἐπεὶ οὐδὲ ἔοικε· / λεύσσετε γὰρ τό γε πάντες ὅ μοι γέρας ἔρχεται ἄλλῃ.

'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 *épei* (with indicative):

(17) toútoisin   mèn   taũta   mélei
      this:DAT.M.PL   and   this:NOM.N.PL   be of interest:PRS.IND.ACT3SG
      kítharis   kaì   aoidé   rheĩa   **epeì**
      lyre(F):NOM.SG   and   song(F):NOM.SG   carefree   because
      allótrion   bíoton
      belonging to another:ACC.M.SG   means of living(M):ACC.SG
      népoinon   édousin   anéros ...
      anavenged:ACC.M.SG   eat:PRS.IND.ACT3PL   man(M):GEN.SG

      τούτοισιν μὲν ταῦτα μέλει, κίθαρις καὶ ἀοιδή, / ῥεῖ', ἐπεὶ ἀλλότριον βίοτον νήποινον ἔδουσιν, / ἀνέρος, οὗ δή που λεύκ' ὀστέα πύθεται ὄμβρῳ / κείμεν' ἐπ' ἠπείρου, ἢ εἰν ἁλὶ κῦμα κυλίνδει.

      'These men care for things like these, the lyre and song, careless, 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 (*rheĩa*) how their livelihood is financed.

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

(18)   nēleés,   ouk ára soí   ge
       merciless:VOC.M.SG   not then you:DAT.SG PART
       patḕr   ēn   hippóta
       father(M):NOM.SG be:IMP.F.IND.ACT3SG horseman(M):NOM.SG
       Pēleús,   oudè   Thétis   mḗtēr·
       Peleus(M):NOM.SG and not   Thetis(F):NOM.SG   mother(F):NOM.SG
       glaukḕ   dé   se
       gray:NOM.F.SG   PART   you:ACC.SG
       tíkte   thálassa
       give birth to:IMP.F.IND.ACT3SG   see(F):NOM.SG
       pétrai   t'   ēlíbatoi,   **hóti**
       rock(F):NOM.PL the:NOM.F.PL jagged:NOM.F.PL   because
       toi   nóos   estìn
       you:DAT.SG mind(M):NOM.SG   be:PRS.IND.ACT3SG
       apēnḕs
       hard:NOM.M.SG
       νηλεές, οὐκ ἄρα σοί γε πατὴρ ἦν ἱππότα Πηλεύς, / οὐδὲ Θέτις μήτηρ·
       γλαυκὴ δέ σε τίκτε θάλασσα / πέτραι τ' ἠλίβατοι, ὅτι τοι νόος ἐστὶν
       ἀπηνής.
       'O Merciless, horseman Peleus was not your father nor Thetis 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, *hóti*-clauses serve as motivation of evaluations, in (19) for the
choice of *arístēn boulḕn ... pykinḕs* 'best counsel ... shrewd' (with indicative):

(19)   pollõn   d'   agroménōn   tõi
       many:GEN.M.PL   PART   gathered:GEN.M.PL the:DAT.M.SG
       peíseai   hós   ken   arístēn
       follow:FUT.IND.MED2SG   who:NOM.M.SG   PART best:ACC.F.SG
       boulḕn   bouleúsēi: mála   dè
       counsel(F):ACC.SG give advice:FUT.IND.MED2SG very   PART
       chreṑ   pántas   Achaioùs
       need(F):NOM.SG all:ACC.M.PL   Achaean:ACC.M.PL
       esthlḕs   kaì pykinḕs,   hóti
       good:GEN.F.SG   and shrewd:GEN.F.SG because
       dḗïoi   eggýthi nēõn
       enemy:NOM.M.PL   close   ship(F):GEN.PL.F
       kaíousin   pyrà   pollá:
       kindle:PRS.IND.ACT3PL watchfire(N):NOM.PL many:NOM.N.PL
       πολλῶν δ' ἀγρομένων τῷ πείσεαι ὅς κεν ἀρίστην βουλὴν βουλεύσῃ:
       μάλα δὲ χρεὼ πάντας Ἀχαιοὺς ἐσθλῆς καὶ πυκινῆς, ὅτι δήϊοι ἐγγύθι νηῶν
       καίουσιν πυρὰ πολλά

       'And when many are gathered together you shall follow the one who
       shall devise the wisest counsel. And all the Achaeans have need of coun-
       sel 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 con-
junctions 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 *hí* and *gár* respectively (with indicative):

(20)   váco   dīrgháprasadmaníśe
       word(N):NOM.SG   Dīrghaprasadman(M):LOC.SG
       vā́jasya   gómataḥ /
       nutrition(M):GEN.SG rich in cattle:GEN:M.SG
       íśe   **hí**   pitvò
       able:IND.PRS.MED3SG for food(M):ACC.SG
       'viṣásya   dāváne
       unempoisoned:GEN.M.SG give:PRS.INF.ACT
       'A (single) word at (the place) Dīrghaprasadman (providing a long seat
       [= ritual ground]) gives nutrition being rich in cattle. For it is able to give
       unempoisoned food.'   (RV 8,25,20) / (cf. Jamison/Brereton II, 1082)

2.3.2   Ancient Greek

(21)   nũn d' ainõs   deídoika   katà phréna   mḗ
       now but terribly fear:Pf.IND.ACT1SG in   heart(F):ACC.SG that
       se   pareípēi   argyrópeza
       you:ACC.SG win over:AOR.SUBJ.ACT3SG silver-footed:NOM.F.SG
       Thétis   thygátēr   halíoio
       Thetis(F):NOM.SG daughter(F):NOM.SG   of the see:GEN.M.SG
       gérontos   ēeríē   **gàr** soí   ge
       old man(M):GEN.SG at early dawn   for   you:DAT.SG   PART
       parézeto   kaì   lábe
       sit by:AOR.IND.MED3SG   and   clasp:AOR.IND.ACT3SG
       goúnōn
       knee(N):GEN.PL

νῦν δ' αἰνῶς δείδοικα κατὰ φρένα μή σε παρείπη / ἀργυρόπεζα Θέτις
θυγάτηρ ἁλίοιο γέροντος: / ἠερίη γὰρ σοί γε παρέζετο καὶ λάβε γούνων
'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   etāni   evá ajínāni   mŗgéṣu
      since now this:NOM.N.PL just skin(N):NOM.PL deer(M):LOC.PL
      bhávanti   átha éṣām   pŗṣṭíḥ
      be:PRS.IND.ACT3PL then this:GEN.M.PL rib(F):ACC.PL
      apiśírya   pacāmahe
      break:ABS cook:PRS.SUBJ.MED1PL
      'Since there are those skins on deer, we break their ribs and cook them'
                   (Śataphatabrāhmaṇa (Kesin 15))

(23)   **hóti** dè   hē   peithṑ
      since but the:NOM.F.SG persuasion(F):NOM.SG
      prosioũsa   tõi   lógōi   kaì
      sticking to:NOM.F.SG the:DAT.M.SG discourse(M):DAT.SG and
      tèn   psychèn   etypósato
      the:ACC.F.SG soul(F):ACC.SG shape:AOR.IND.MED3SG
      hópōs eboúleto   chrȇ
      how will:IPF.IND.MED3SG need(F):NOM.SG
      matheîn   prõton   mèn   toùs
      understand:AOR.INF.ACT first:ACC.N.SG indeed the:ACC.M.PL
      tõn   meteōrológōn   lógous ...
      the:GEN.M.PL astronomer(M):GEN.PL discourse(M):ACC.PL
      ὅτι δ' ἡ πειθὼ προσιοῦσα τῷ λόγῳ καὶ τὴν ψυχὴν ἐτυπώσατο ὅπως
      ἐβούλετο, χρὴ μαθεῖν πρῶτον μὲν τοὺς τῶν μετεωρολόγων λόγους ...
      '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):DAT.SG   because   penance(N):NOM.SG
      SIxSÁ-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   SIxSÁ-ri   nu-   -kán
      he:DAT.C.SG how   ask an oracle:PRS.MED3SG now   PART
      ZI   DINGIR^LIM   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 correlate in the following
main clause (with indicative):

(25)   **yát**   ná   ávediṣam   **téna**
      because not know:AOR.IND.ACT1SG   the:INSTR.N.SG
      ahiṃsiṣam
      offend:AOR.IND.ACT1SG
      'Because I did not know you, therefore I have offended you'
                 (Śataphatabrāhmaṇa 1.5.7. (Cyavana))

(26)   **yád**   enena   ākhidat   **tásmāt**
      because this:INSTR.M.SG grasp:IPF.IND.ACT3SG therefore
      khādiráḥ   yūpaḥ
      of Khadira wood:NOM.M.SG sacrificial post(M):NOM.SG
      bhavati   khādiráḥ
      be:PRS.IND.ACT3SG of Khadira wood:NOM.M.SG
      sphyáḥ
      spatula(M):NOM.SG
      'Because she grasps it with that one therefore the sacrificial post is of
      Khadira wood, the spatula of Khadira wood'
                 (Śataphatabrāhmaṇa 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 correlate.

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 *hoúneka* 'because'. Example (27) contains also a correlative in the main clause (with indicative):

(27)   **hoúneka** dè   nỹn   dîon   'Aléksandron
       because PART now   noble:ACC.M.SG   Alexander(M):ACC.SG
       Menélaos   nikḗsas   ethélei
       Menelaos(M):NOM.SG conquer:NOM.M.G want:PRS.IND.ACT1SG
       stygerèn   emè   oíkad'   ágesthai,
       wretched:ACC.M.SG I:ACC.SG home   lead:INF.PRES.MED
       toúneka dè   nỹn   deûro   dolophronéousa
       therefore PART now hither guileful:ACC.F.SG
       paréstēs
       stand up:AOR.IND.ACT2SG
       οὕνεκα δὴ νῦν δῖον Ἀλέξανδρον Μενέλαος / νικήσας ἐθέλει στυγερὴν
       ἐμὲ οἴκαδ' ἄγεσθαι, / τοὕνεκα δὴ νῦν δεῦρο δολοφρονέουσα παρέστης;
       '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 *hoúneka* without correlative by introducing thus postponed motivation of propositions (with indicative):

(28)   oũtá   me   Tydéos
       wound:IMPF.ACT3G   I:ACC.SG Tudeus(M):GEN.SG
       hyiòs   hypérthumos   Diomḗdēs,
       son(M):GEN.SG   high-spirited:NOM.M.SG Diomedes(M):NOM.SG
       hoúnek' egò   phílon   huiòn
       because I:NOM.SG dear:ACC.M.SG   son(M):ACC.M.SG
       hypexépheron   polémoio
       bear forth:IMPF.IND.ACT1SG war(M):GEN.SG
       Aineían   hòs   emoì
       Aineias(M):ACC.SG who:NOM.M.SG   I:DAT.SG
       pántōn   polỳ phíltatós   estin
       all:GEN.M.PL   far   dearest:NOM.M.SG be:PRS.IND.ACT3SG
       'οὗτά με Τυδέος υἱὸς ὑπέρθυμος Διομήδης, / οὕνεκ' ἐγὼ φίλον υἱὸν
       ὑπεξέφερον πολέμοιο Αἰνείαν, ὃς ἐμοὶ πάντων πολὺ φίλτατός 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 *hí* 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)   ẽ   **gár**   ken   deilós   te   kaì
       indeed surely PART   coward:NOM.M.SG   both   and
       outidanòs   kaleoímēn
       unworthy:NOM.M.SG   be called:PRS.OPT.PASS1SG
       ei   dè   soì   pãn   érgon
       if straightway you:DAT.SG   every:ACC.N.SG matter:ACC.N.SG
       hypeíxomai   hótti   ken   eípēis
       yield:AOR.SUB.MED3SG whatever PART   say:AOR.SUB.AKT2SG
       ἦ γάρ κεν δειλός τε καὶ οὐτιδανὸς καλεοίμην / εἰ δὴ σοὶ πᾶν ἔργον
       ὑπείξομαι ὅττί κεν εἴπης:
       '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 1,293f.)

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

(30)   autàr **epeì** r'   eúxanto   kaì
       then   when PART pray:AOR.IND.MED3PL   and
       oulochýtas   probálonto
       barley groats(F):ACC.PL   sprinkle:AOR.IND.MED3PL
       auérysan   men
       draw back:AOR.IND.ACT3PL   but
       prõta kaì ésphaxan   kaì   édeiran
       first and slaughter:AOR.IND.ACT3PL   and   flay:AOR.IND.ACT3PL
       αὐτὰρ ἐπεί ῥ' εὔξαντο καὶ οὐλοχύτας προβάλοντο, / αὐέρυσαν μὲν πρῶτα
       καὶ ἔσφαξαν καὶ ἔδειραν

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[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   **epeí**   me   kat'
      Hector(M):VOC.SG   after/since   I:ACC.SG   according to
      aĩsan   eneíkesas   oud'   hypèr
      suitability(F):ACC.SG   chide:AOR.IND.ACT2SG   not   over
      aĩsan   toúnekà   toi
      suitability(F):ACC.SG   therefore   you:DAT.SG
      eréō   sỳ   de
      tell:PRS.SUBJ.ACT1SG   you:NOM.SG PART   PART
      sýntheo   kaì   meu   ákouson
      hear:AOR.IMP.MED2SG   and   I:GEN.SG   listen:AOR.IMP.ACT2SG
      Ἕκτορ ἐπεί με κατ' αἶσαν ἐνείκεσας οὐδ' ὑπὲρ αἶσαν, / τοὔνεκά τοι
      ἐρέω· σὺ δὲ σύνθεο καί μευ ἄκουσον
      '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) áśvyo   váro   abhavas
      of horse:NOM.M.SG   tail(M):NOM.SG   become:IMPF.IND.ACT2SG
      tád   indra   sṛké   yát
      then Indra(M):VOC.SG   top(N):ACC.DUAL   when/since
      tvā   pratyáhan
      you:ACC.G   smite:IMPF.IND.ACT3SG
      'You became a horse's tail, o Indra, when/since he struck his fangs at
      you'   (RV 1,32,12; Jamison/Brereton I, 135; Hettrich 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) sỳ   d'   éndothi   thymòn
      you:NOM.SG   PART   inside   heart(M):ACC.SG
      amýxeis   chōómenos   **hó t'**
      gnaw:FUT.ACT2SG   being indignant:NOM.M.SG   that/because
      áriston   Achaiōn   oudèn
      best:ACC.M.SG   Achaean(M):GEN.PL   nothing
      éteisas
      honour:AOR.IND.ACT2SG

σὺ δ' ἔνδοθι θυμὸν ἀμύξεις / χωόμενος ὅ τ' ἄριστον Ἀχαιῶν οὐδὲν
ἔτισας.
'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 ὅτι, 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 ERÍN^MEŠ-   -ma- -mu   **kui-it**
      of troops:GEN.PL   but   I:DAT.SG   what:ACC.SG.N
      ut-tar   ḫa-at-ra a-eš   nu-   -mu
      matter(N):ACC.SG   write:PRS.IND2SG   PART   I:DAT.SG
      ka-a kat-ti- -mi   ERÍN^MEŠ   KUR.UGU
      here with   I:LOC.SG   troops:NOM.PL   Upper Country:GEN.SG
      ERÍN^MEŠ   KUR ^URU   Iš-ḫu-u-pi-it-ta   ku-iš-ki
      troop:NOM.PL   Country   Isḫupitta:GEN.SG   who:NOM.SG.C
      na-   -an-   -da   up-pa-aḫ-ḫi
      PART he:ACC.SG.C   you:DAT.SG   send:PRS.IND1SG
      'Now as for the affair of troops about which you wrote to me, the sol-
      diers of the Upper Country and the troops of the country of Isḫupitta
      (being) here with me, whoever (be), I will send them to you'
                        (Hittite Letters from Maşat = Höyük (Mşt. 75/61 Rs. 17ff.))
                                        (Goedebuure 2003: 208; Lühr 1998: 223)

Finally, language comparison proves the particle Old Indic *hí* to be an originally confirming one, cf. Old Avestan *zī* 'for' indeed (German *ja* 'however'. Correspondences appear as reinforcementof the negation: Old Indic *na-hí*, Greek *ou-chí, mḗ-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-incidence of the central, peripheral and disintegrated causal clauses comparable to the German *weil*-verb final and *weil*-verb2-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 *hí* 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 *hí* the same stress as in subordinate clauses applies. Hence,

since the Old Indic *hí*-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 (Hettrich 1988: 179). *hí*-clauses as well as *gár*-clauses thus show main clause phenomena and are indeed comparable to German *denn*-clauses. But contrary to the development with German *denn*-clauses, *hí*- and *gár*-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 *hí*- and *gár*-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 *hí* or *gár* near the beginning of the clause the addressee prepares himself that the speaker is willing to defend the assertion if challenged. Thus, *hí*- and *gár*-clauses fall into the domain of at-issueness 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 *hí*- and *gár*-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 imperfective 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 *hí* and Ancient Greek *gár*. 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 *wan(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]

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[13] According to Luraghi (1995) *gár* tends to occur with initial verbs, if the verb is in the imperfective aspect which is another background strategy. She assumes that the basic feature of the information introduced by *gár* 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 *hoúneka* '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 *epeí* 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; Musan 2002; Schilder/Tenbrink 2001; von Stechow 2002; Steidele 2003, amongst others) as well as syntactic properties (Coniglio 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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