

Competitive Indo-European syntax

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In the following article I will analyse the different constructions of embedded object clauses in the older Indo-European languages. In quite a lot of modern Indo-European languages the standard realisation of the sentential object clause is a finite subordinate clause introduced by a complementizer corresponding to the English conjunction *that*. In contrast, in some of the older Indo-European languages, this construction is only rarely attested, e.g., in Vedic, and a variety of structures without that-complementizer are used instead (“that-clause competitors”). By cross-linguistic comparison I will reconstruct that two object clause constructions were part of the Proto-Indo-European syntactic structure and that one of them, the explicative clause, can be considered as the predecessor of the modern finite that-object clauses. Furthermore I will show how the relational element of the explicative clause, a *wh*-operator corresponding to English *which*, could change to a complementizer element like that.

1. Introduction

Within the scope of the project “Competitive Indo-European Syntax” (Indogermanische Konkurrenz-Syntax) my team and I were studying constructions in older Indo-European languages which compete with finite subordinate clauses, for example infinitive or participial constructions, absolutes, gerunds, gerundives, supines or constructions including an abstract noun with or without a preposition. Our perspective is functional or onomasiological, for the data is structured to answer the following questions: Which of the mentioned constructions function as subject, object, adverbial or attribute? Which constructions could be used instead of a temporal, final or causal clause, etc.? Most other studies deal with subordinate clauses in a semasiological manner. One approaches a conjunction by examining its meaning. An example for such an investigation is Hettrich (1988), a very thorough study of conjunctions in the Rig-Veda. But having studied this book one does not know which functions, commonly expressed by conjunctions in other Indo-European languages, are not realized as such in Vedic. This is particularly regrettable because in the oldest stage of Vedic a very important conjunction function is hardly ever articulated as a conjunction: the conjunction *that* to

be specific. Since the main domain of this conjunction in German or English is undoubtedly to subordinate finite object clauses, a serious question arises. What does the syntactic structure of languages look like, that do not have such a convenient conjunction to mark finite object clauses, as in German *dass* or in English *that*? What constructions are used instead of such clauses? In the following they shall be referred to as ‘*that*-clause competitors’.¹

First it will be shown which competing structures are available. I restrict myself to the oldest attested Indo-European languages: Hittite, Vedic, Iranian, Greek, Latin and Germanic. The data is primarily taken from our Thesaurus of Subordination Competitors in older Indo-European (‘Konkurrenz-Thesaurus zur Subordination in der älteren Indogermania’).² Among the Germanic languages Old Saxon was selected because of its abundant, uniform, indigenous record. In order to reconstruct which type of object clause or which syntactic competitor was used by the Indo-Europeans the next step is the determination of the least common denominator among the alternatives in the individual Indo-European languages. Supposing we have indeed determined the original Indo-European cognate of an object clause introduced by *that*, our task is then to elucidate such an object clause or its competing structure with respect to reconstructed adverbial clauses or relative clauses.

At this point one must reiterate the question put forth in Hermann’s 1894 doctoral thesis in Jena, “Did Indo-European have subordinate clauses?” The answer is undoubtedly “Yes”, but are these clauses embedded or can the reconstructed object clause also support Kiparsky’s (1995: 155ff.) opinion that such clauses are only adjoined? Modern generative syntax will help us to find an appropriate answer. Following a step back to the precursor of Indo-European, we will concentrate on the well documented older Indo-European languages again. Based on the evidence that later Hittite, Avestan, Old Persian, Old Greek and Germanic do indeed have object clauses introduced by *that*, it is our intention to outline the development of the reconstructed Proto-Indo-European object clause to the respective structure in the authenticated languages by means of one example. It will become evident that a typological change has taken place concerning subordination throughout the development of individual languages.

The preceding approach makes obvious that we are reconstructing a proto-language. Working according the principle that the presence of numerous firmly established equivalences within individual Indo-European languages can neither be explained by coincidence or borrowing, nor treated as if these data reflect universal aspects of human languages, we only consider the hypothesis of derivation

1. Cf. Lehmann (1980: 113ff.); Gippert (2004: 48ff.).

2. <http://www.indogermanistik.uni-jena.de> (Link: “Materialsammlungen”).

from a common preliminary phase of these language groups to be a suitable explanation. In that we follow the classical linguistic comparative method keeping in mind that this method does not work equally well for grouping the Indo-European language family into chronologically deeper *taxa*. Moreover, we follow Dressler (1971: 6) in considering reconstruction as *Wahrscheinlichkeitsschätzung* ('probability estimation'), which depends upon six factors: (a) the spreading of a language phenomenon in the Indo-European languages; (b) the conformity of its *signifiants*; (c) the conformity of its *signifiants* in the individual languages; (d) the results of the internal reconstruction; (e) the possibility of inserting an individual phenomenon in the frame of a reconstructed more extensive phenomenon; (f) the typological factor. Dressler 1971 complained that the last point is often overlooked, a statement which more than 30 years later is still valid in Indo-European linguistics, though there is a simple checking procedure: If a reconstruction is contradictory to observable data of all living languages in the world, it is improbable. The more parallels exist in living languages the more probable it gets. So a reconstruction is some sort of "quasi-universal" and probably accurate. But if a reconstruction proves to be a linguistic universal, it is accurate. In the case of the *that*-clause competitors the claims (a) to (f) are fulfilled. Firstly, it is definitely possible to establish correspondences in syntax between the older Indo-European languages, which can be reconstructed as parts of the syntactic system of a proto-language. These are the subordination designating devices, namely conjunctions, mood, certain verbal forms. Secondly, all these devices have parallels in modern languages, too.

The objection that real sentences, i.e., sentences in their full context, cannot be reconstructed is self-evident, cf. Dressler (1971: 5ff.). In addition one may not be able to verify that the reconstructed elements in a sentence all belong to the same historical phrase of a language. Historical linguistics has therefore been primarily interested in syntactic patterns. But once the patterns have been reconstructed, one might be able to consider what form the grammar of speakers at that stage must have had in order to produce such patterns, compare Harris & Campbell (1995: 372). With respect to language change the comparison of the syntax of the Indo-European language will demonstrate that syntactic change referring to subordinated propositions initially proceeds on the basis of syntactic variation, since speakers normally use multiple analyses during the period of actualisation (compare Harris & Campbell 1995: 83). The structure of *that*-clause competitors must only be able to designate an event containing an agent and some sort of verbal behaviour ("Verhaltensweise"), an activity, an event or a state. This constellation is universal, but not the means to express it. Secondly, it will be shown that our modern *that*-clauses arose by a pragmatic change. In this we follow Longobardi (2001: 278) who assumes that syntactic change only takes place if it is caused by

another type of change: “linguistic change proper [...] may only originate as an interface phenomenon”.

2. Analysis

2.1 That-clauses and that-clause competitors in the function of an object in the older Indo-European languages

When examining *that*-clauses and *that*-clause competitors in the function of an object in the older Indo-European languages it is advantageous to concentrate on the denotation of actions, the agent or patient role of which are not included in the super-ordinate structure. Only in such cases are we dealing with a semantic assertion independent of the main clause. The following *that*-clause competitors are arranged according to their degree of inflection. Whereas abstract deverbal nouns constitute the lower end of the scale, subordinated structures with finite verbs differentiated for time and mode constitute the upper end.

2.1.1 Abstract deverbal nouns

Among the languages considered only the Anatolian branch yields productive formation of deverbal nouns. If such nouns, especially those ending in *-uwar* and *-atar*, are combined with genitive elements to implement the function of a *genitivus subiectivus* or *genitivus obiectivus* complete propositions can result.

- (1) Hittite KUB XIX 23 Rs. 13'ff.
- (13') GIM-*an-ma* ŠA DUTUŠI
as soon-but-PART GEN-PART DET-sun-my
- (14') TI-*tar* iš-*dam-ma-aš-šir* na-*at-kán*
life-ACC.SG.N they heard-3.PL.IND.PRET.ACT and they-NOM.PL.C-PART
nam-ma ar-ru-ša UL [*pa-a-ir*]
further PFX not they succumbed-3.PL.IND.PRET.ACT
- (15') ki-*nu-un-ma* GIM-*an* ŠA EN-YA *har-ga-an*
now-but-PART as soon GEN-PART lord-my death-ACC.SG.C
iš-dam-ma-aš-šir
they heard-3.PL.IND.PRET. ACT
- (16') na-*at* *nam-ma a-ru-ú-[ša]* *pa-a-ir*
and they-NOM.PL.C further PFX they succumbed-3.PL.IND.PRET.ACT
'As soon as they heard of the life of the sun [genitivus subiectivus], they did not succumb. But now that they have heard of the death of my lord [genitivus subiectivus], they have succumb'
(‘Sobald sie aber von der Sonne Leben erfuhren, gingen sie nicht unter; jetzt aber, da sie von meines Herrn Umkommen erfuhren, gingen sie doch unter’)

- (2) late Hittite KBo V 6 III 5f.
- (5) LÚ^{MES} KUR ^{URU}Mi-iz-ra-ma ma-ah-ha-an
 people-NOM.PL country DET-Egypt as soon
- (6) ŠA KUR ^{URU}Am-ka GUL-ah-hu-wa-ar
 GEN-PART country DET-Amka destruction-ACC.SG.N
 iš-ta-ma-aš-ša-an-zi
 they hear-3.PL.IND.PRES.ACT

'As soon as the Egyptians hear that the country Amka was destroyed'

(*genitivus obiectivus*)

('Sobald aber die Ägypter hören, dass das Land Amka vernichtet wurde')

In the other languages this construction only occurs occasionally, for instance in the conversion of a participle into a noun in Vedic.

- (3) Old Indian RV 3,38,9
 víśve paśyanti māyīnaḥ kṛtāni
 all-NOM.PL.M they see-3.PL.IND.PRES.ACT magician-GEN.SG.M deeds-ACC.PL.N
 'All see the deeds of the magic adept'
 ('Alle sehen die Werke des Zauberkundigen')³

2.1.2 Infinitive constructions

As shown in Lühr (1993: 232ff.), infinitive constructions denoting whole propositions can be found beyond the Anatolian languages. Thus, the *accusativus-cum-infinitivo* (AcI) is present in Indo-Iranian, Greek and Latin for verbs of 'volition':

- (4) Old Indian RV I,129,4
 asmākaṃ va indram
 YOUR-GEN.PL.M PART Indra-ACC.SG.M
 uśtmasiṣāye sakhāyaṃ
 we wish-1.PL.IND.PRES.ACT-incite-INF.DAT.SG.F friend-ACC.SG.M
 viśvāyum ...
 lifelong-ACC.SG.M
 'We wish that Indra as our lifelong friend incites you'
 ('Wir wünschen, dass euch Indra als unser lebenslänglicher Freund gerne komme ...'; Geldner; Disterheft (1980: 76f.))

3. The genitive case depends on a verbal substantive here. It is equivalent to the agent (Lühr 1994).

(5) Avestan Y 34,4

aī tōi ātrēm ahurā aojōḡhuuaṇtəm
 then of your-GEN.SG fire-ACC.SG.M Herr-VOC.SG.M vigorous-ACC.SG.M
ašā usmahī asištīm
 truth-INSTR.SG.N we wish-1.PL.IND.PRES.ACT impetuous-ACC.SG.M
āmauuṇtəm stōi rapaṇtē ...
 strong-ACC.SG.M be-INF supporter-DAT.SG.M

‘We desire Thy fire, O Ahura, (which is) strong through truth, very vigorous (and) impetuous, to be a bright help to (Thy) supporter ...’; Humbach (1991: 140).

‘(Nun begehren wir, o Lebensherr, von deinem durch Wahrhaftigkeit starken Feuer, das gar schnell und durchdringend ist, dass es dem Freunde mit glanzvoller Hilfe diene ...)’⁴

(6) Old Greek Od ρ 81

αὐτὸν ἔχοντα σὲ
 him-ACC.SG.M keeping-PRT.PRES.ACT.ACC.SG you-ACC.SG.M
βούλομαί ἐπαυρέμεν, τινα
 I prefer-1.SG.IND.PRES.MED enjoy-INF.AOR.ACT someone-ACC.SG.M
τῶνδε
 of these-GEN.PL.M

‘... I wish that you should keep and enjoy these things yourself rather than one of them’

‘... so will ich lieber, dass du es, indem du es behältst, genießt als einer von diesen’

(7) Latin Plautus, Amphitruo 980

*volo deludī illunc*⁵
 I wish-1.SG.IND.PRES.ACT be laughed at-INF.PRES.PASS the former-ACC.SG.M
 ‘I want that he be ridiculed’
 (‘Ich will, dass jener verlacht wird’)

It is present in Greek and Latin contingent on verbs denoting ‘belief’, ‘opinion’, ‘knowledge’, ‘speaking’ and ‘hearing’.⁶

4. More examples can be found in Disterheft (1980: 99f.).

5. In Latin the infinitive can also be absent; cf. *volo te consulem* – ‘I want [you] to be consul’ (Hofmann & Szantyr 1965: 43).

6. Coleman (1985: 327); Hettrich (1992: 233).

(8) Old Greek Oda 323

ἰόσατο *γὰρ θεὸν εἶναι*
 he believed-3.SG.IND.AOR.MED for god-ACC.SG.M be-INF.PRES.ACT
 'for he suspected this (individual) to be a god'
 ('denn er glaubte, dass es ein Gott ist')

(9) Latin Plautus, Amphitruo 416

Egomet mihi non credo, cum
 I-1.P.NOM.SG me-1.P.DAT.SG not I believe-1.SG.IND.PRES.ACT when
illaec autumare illum
 this-ACC.PL.N speak-INF.PRES.ACT the former-ACC.SG.M
audio
 I hear- 1.SG.IND.PRES.ACT
 'I do not believe myself, when I hear him speak in such a way'
 ('Höre ich den so reden, glaube ich selbst mir nimmer')

(10) Latin Plautus, Amphitruo 104

nam ego vos novisse
 for I-1.P.NOM.SG you-2.P.ACC.PL know-INF.PRV.ACT
credo iam ut
 I believe-1.SG.IND.PRES.ACT already how
sit pater meus
 were-3.SG.SBJ.PRES.ACT father-NOM.SG.M my-NOM.SG.M
 'for I believe that you already know, how my father be'
 ('denn ich glaube, ihr wisst schon, wie mein Vater ist')

(11) Old Greek Iliad A 521

... *καί τέ μέ φησι μάχη*
 and PART me-1.P.ACC.SG she says-3.SG.IND.PRES.ACT battle-DAT.SG.F
Τρώεσιν ἀρήγειν
 Trojans-DAT.PL.M help-INF.PRES.ACT
 'and she says that I am helping the Trojans in the battle'
 ('... und sie behauptet, ich würde im Kampf den Troern helfen';
 Hettrich 1992: 232)

(12) Latin, Plautus, Capitivi 511

dico eum esse
 I say-1.SG.IND.PRES.ACT him-ACC.SG.M be-INF.PRES.ACT
apud me
 by me-1.P.ACC.SG.M
 'I say that he is with me'

- (13) Old Greek
ἀκούω σὲ λέγειν
 I hear-1.SG.IND.PRES.ACT you-2.P.ACC.SG speak-INF.PRES.ACT
 'I hear (as gossip) that you speak'⁷

Even further the AcI is documented in Latin with verbs denoting 'cognition' and 'vision' and with the *verba affectus*:

- (14) Latin Plautus, *Asinaria* 438
nam vidi *huc ipsum* *adducere*
 for I saw-1.SG.IND.PFV.ACT here himself-ACC.SG.M bring-INF.PRES.ACT
trapezitam *Exaerambum*
 money-changer-ACC.SG.M Exaerambus-ACC.SG.M
 'For I saw that Exaerambus himself brought the money-changer here'
 ('Denn ich sah, dass Exaerambus selbst den Wechsler hierher brachte')
- (15) Latin Plautus, *Mostellaria* 796
sed ut maestus *sese*
 but how sad-NOM.SG.M-he is-3.SG.IND.PRES.ACT him-ACC.SG
hasce *uendidisse!*
 these-ACC.PL.F have sold-IND.PFV.ACT
 'but how sad he is that he has sold this (house)!'
 ('aber wie betrübt er ist, dass er dieses (Haus) verkauft hat!';
 Kühner & Stegmann 1955: 691)

The integration of increasingly more verbs into the domain of the AcI-construction bases on common semantic universals as can also be observed in the evolution of constructions in other languages of the world.⁸ Greek uses one and the same AcI-verb *ἐλπوماί* 'to expect, to hope, to mean' as a verb of 'volition', of 'belief' and of 'opinion'. Furthermore, the fact that 'to mean' can substitute for 'to say' is evident in the meaning of Germ. *meinen*.⁹

If a speaker uses a factual verb of 'speaking' in the 1st person singular he is usually making a statement, if he knows that statement to be valid. Since the

7. In contrast, the AcP has the sense of 'I hear (from others the fact) that you speak' (Bornermann & Risch 1973: 249).

8. Concerning the reverse direction in the spread of the 'quotive' constructions compare Saxena (1995: 359ff.).

9. The AcI construction in Greek was originally used with the verb 'to say' and then went on to cover more or less unproven statements while 'say' became bound as a factitive verb to the AcP construction or the *that*-clause competing with it.

truth of the statement denoted by the verb complement is presupposed, verbs of ‘speaking’ + AcI can have an effect on the construction of factual verbs, namely verbs of ‘cognition’ and ‘perception’. The feature [+ factitive] develops to the point in Latin that the *verba affectus* also produces an AcI.¹⁰ If we also consider the Old Saxon evidence it is visible that the AcI-verbs constitute a uniform semantic group, namely ‘to know’, ‘to see’ and ‘to hear’. However these verbs are also used with *that*-clauses.

2.1.3 Participle constructions, constructions with predicative adjectives

Participle constructions are common to all examined languages. Consider the following example from the Anatolian branch, where the accusative of the accusative-cum-participio (AcP) construction must be extrapolated from the context:

- (16) Late Hittite KBo IV 4 III 71f.
nu ma-ah-ha-an LÚ^{MES} URUaz-zi e-ni-iš-ša-an
 now as people-NOM.PL Azzi in such a way-ADV
pa-ah-ša[-nu-wa-an X] a-ú-e-ir
 protected-PRT.PRES.PASS.ACC.SG.C they saw-3.PL.IND.PRET.ACT
 ‘As the people of Azzi saw **that [the army] was** in such a way
 [...] **protected ...**’
 (‘Als die Leute von Azzi sahen, dass [das Heer] in solcher Weise
 [ge]schützt war ...’)

And with the accusative expression:

- (17) Late Hittite KUB XIII 35 + III 17
am-mu-uk-wa-ra-an ak-kán-ta-an
 me-DAT.SG-SPEECH.PART-him-ACC.SG.C dead/deceased-PRT.PRES.PASS.ACC.SG.C
IQ-BI
 he spoke-3.SG.IND. PRET.ACT
 ‘to me he said **that it [the horse] (is) dead**’
 (‘Mir sagte er, dass es (das Pferd) tot sei’)

Whereas the AcP is rather rare in Hittite and only occurs following the verbs ‘to see’ and ‘to say’ (Cotticelli-Kurras 1995: 98), it is to be found frequently in the oldest phase of Vedic. In particular with verbs of ‘vision’, of ‘hearing’, of ‘belief’, and of ‘speaking’, in which the subordinated verbal action can be active or passive.

10. It is commonly assumed that the AcI in the case of the *verba affectus* is influenced by the pattern of the verbs which express a wish, a hope or an expectation (*spero, desidero*) (Hofmann & Szantyr 1965: 358f.)

- (18) Old Indian RV 10,59,4

mó śú ṇaḥ soma mṛtyáve
 not-PART PART US-ACC.PL Soma-VOC.SG.M death-DAT.SG.M
pārā dāḥ páśyema
 PFX deliver-2.SG.INJ.AOR.ACT we wish to see-1.PL.OPT.PRES.ACT
nú sūryamuccárantam
 now SUN-ACC.SG.M-rising-PRT.PRES.ACT.ACC.SG.M

'Do not deliver us unto death, o Soma, we wish to see the sun rise again!'
 ('Gib uns ja nicht dem Tode preis, o Soma; wir möchten noch die Sonne
 aufgehen sehen!')

- (19) Old Indian RV 5,32,12

evá hí tvám ṛtuthá
 thus-PFX for you-ACC.SG punctually-ADV
yātáyantam maghá
 remunerating-PRT.PRES.ACT.ACC.SG.M presents-ACC.PL.N
víprebhyo dádatam
 skilled with words-DAT.PL.M giving-PRT.PRES.ACT.ACC.SG.M
śṛṇómi
 I hear-1.SG.IND.PRES. ACT

'For I hear, that you punctually remunerate by giving presents to the skilled
 with words'
 ('Denn also höre ich, dass du pünktlich vergiltst, indem du den Redekundigen
 Geschenke gibst')

- (20) Old Indian RV 1,84,17

kó maṁsate sántam
 who-NOM.SG he may think-3.SG.IND.SBJV.MED being-PRT.PRES.ACT.ACC.SG.M
índram kó ánti
 Indra-ACC.SG.M who-NOM.SG.M present-ADV
 'Who thinks that Indra is, who thinks he's present?'
 ('Wer meint wohl, dass Indra ist, dass er gegenwärtig?')

- (21) Old Indian RV 10,179,3

śrātám manya
 cooked-PRT.PRET.PASS.ACC.SG.N I think-1.SG.IND.PRES.MED
údhani śrātám agnau
 utter-LOC.SG.N cooked-PRT.PRET.PASS. ACC.SG.N fire-LOC.SG.M
súśrātám manye tád
 well cooked-PRT.PRET.PASS.ACC.SG.N I think-1.SG.IND.PRES.MED this-ACC.SG.N
ṛtám návīyaḥ
 right-ACC.SG.N newer-COMP.ACC.SG.N

'I think she is boiled in the utter, she is cooked on the fire; I think that this newest (sacrifice) is well cooked, properly'
 ('Ich meine, sie ist im Euter gekocht, sie ist am Feuer gekocht; ich meine, dass diese neueste (Spende) gut gekocht, recht ist')

- (22) Old Indian RV 7,33,13

táto *ha* *mána* *úd iyāya*
 from there-ADV PART Māna he came forth-3.SG.IND.PFV.ACT
mádhyať *táto* *jātám*
 from the midst-ABL.SG.N from there-ADV born-PRT.PRET.PASS.ACC.SG.M
ṛṣim *āhur* *vásiṣṭham*
 Ṛṣi-ACC.SG.M they said-3.PL.IND.PFV.ACT Vasiṣṭha-ACC.SG.M
 'From here (from the seed) came Māna, they said that from there
 Ṛṣi Vasiṣṭha is born'
 ('Daraus (aus dem Samen) ging Māna hervor; sie sagten, dass daraus der
 Ṛṣi Vasiṣṭha geboren ist')

The common Indo-European verb 'to see' can be combined with an AcP in all other examined languages, in Avestan, Greek, Latin, and in Old Saxon:

- (23) Avestan Yašt 5,68

yať spāδəm *pairi auuaēnať* *dūrāť*
 as army-ACC.SG.M PFX he saw-3.SG.IND.IPFV.ACT from afar
aiiantəm *rasmaoiō*
 advancing-PRT.PRES.ACT.ACC.SG.M in battle formations-DAT.PL.M
 'As he saw the army in the distance advancing in battle formation'
 ('Als er das Heer von fern her in Schlachtordnung anrücken sah')

- (24) Old Greek Iliad Θ 278f.

τὸν *δὲ* *ιδῶν*
 him-ACC.SG.M PART seeing-PRT.AOR.ACT.NOM.SG.M
γῆθησεν *ἄναξ*
 he was pleased-3.SG.IND.AOR.ACT lord-NOM.SG.M
ἀνδρῶν *Ἀγαμέμνωνι* *τόξου* *ἄπο*
 men-GEN.PL Agamemnon-NOM.SG.M bow-GEN.SG.N with
κρατεροῦ *Τρώων* *ὀλέκοντα*
 strong-GEN.SG.N Trojans-GEN.PL.M destroying-PRT.PRES.ACT.ACC.SG.M
φάλαγγας
 lines of battle-ACC.PL
 'He was pleased when he saw him, the lord of men Agamemnon,
 as he with his strong bow destroyed the battalions of Trojans'
 ('Da freute sich, als er ihn sah, der Herr der Männer Agamemnon, wie er mit
 dem starken Bogen vernichtete die Reihen der Troer')

- (25) Latin Plautus, Epidicus 435
quem [ego] *huc*
 whom-ACC.SG.M I-1.P.NOM.SG here
advenientem *conspicor?*
 arriving-ACC.SG.M I see-1.SG.IND.PRES.DEP
 ‘Whom do I see arriving here?’
- (26) Old Saxon Heliand 4405f.
Huan *gisah* *thi* *man*
 whom-ACC.SG.M he saw-3.SG.IND.PRET.ACT you-ACC.SG man-NOM.SG.M
ênig/ *bethuungen* *an*
 any-NOM.SG.M vanquished-PRT.PRET.PASS.ACC.SG.M in
sulicun *tharaðun?*
 such-DAT.PL.M deficits-DAT.PL.F
 ‘When did anyone see you vanquished by such deficits?’
 (‘Wann sah dich irgendjemand von solchem Mangel bezwungen?’)

And in Greek the AcP occurs with the verb ‘to hear’, but also like in Old Saxon with the verb ‘to know’, whereby Greek can additionally expressly denote antecedent action in the participle:¹¹

- (27) Old Greek Iliad H 129
τούς *νῦν* *εἰ* *πτώσσοντας*
 they-ACC.PL.M now when cowering-PRT.PRES.ACT.ACC.PL.M
ὑφ’ Ἑκτορι *πάντας* *ἀκούσαι*
 below Hector-DAT.SG.M all-ACC.PL.M he hears-3.SG.OPT.AOR.ACT
 ‘And if he were to hear that these men are all now cowering before Hector’
 (‘Wenn er nun hört, wie sich diese alle vor Hektor ducken’)
- (28) Old Greek Odyssee η 211f.
οὓς *τινας* *ὑμεῖς* *ἴστε*
 those of whom-ACC.PL.M you-NOM.PL you know-2.PL.IND.PRES.ACT
μάλιστα’ *ἰχέοντας* *ὀϊζὸν/* *ἀνθρώπων ...*
 greatest-ACC.SG.F bearing-ACC.PL.M affliction-ACC.SG.F men-GEN.PL.M
 ‘those of whom you know that they bear the greatest affliction among mankind ...’
 (‘solche, von denen ihr wisst, dass sie am meisten Jammer tragen unter den Menschen ...’)

11. Greek also displays the genitivus-cum-participio: Odyssee α 289.

εἰ δέ κε *τεθνηώτος* *ἀκούσης*
 if but PART having died-PRT.PFV.ACT.GEN.SG.M you may hear-2.SG.SBJV.PRES.ACT
μηδ’ ἔτ’ *ἔόντος ...*
 not longer living-PRT.PRES.ACT.GEN.SG.M
 ‘And if you hear he is dead and no longer among the living ...’
 (‘Doch wenn du hörst, er sei tot und nicht mehr am Leben ...’)

- (29) Old Saxon Heliand 5729ff.

Hie *giuuêt* *im* *thuo forð*
 he-3.P.NOM.SG.M he went-3.SG.IND.PRET.ACT himself-REFL then forth
thanan/ *gangan* *te* *them* *galgon,*
 from there to go-INF to the-ART.DAT.SG.M gallows-DAT.SG.M
thar *hie* *uissa*
 where he-3.P.NOM.SG.M he knew-3.SG.IND.PRET.ACT
that *godes* *barn, /* *hrêo*
 that-ART.ACC.SG.N God-GEN.SG.M child-ACC.SG.N body-ACC.SG.N
hangondi *hêrren* *sines*
 hanging-PRT.PRES.ACT.ACC.SG.N Lord-GEN.SG.M his-GEN.SG.M

'He went immediately forth to go to the gallows, where he knew that God's child, the body of his Lord hung'

('Er machte sich alsbald auf, um zu dem Galgen zu gehen, wo er wusste, dass das Gotteskind, der Leichnam seines Herrn hing')

- (30) Old Greek Odyssee ω 404f.

ἤ *ἤδη* *σάφα* *οἶδε*
 PART already clearly she knows-3.SG.IND.PFV.ACT
περίφρων *Πηνελόπειαι*
 circumspect-NOM.SG.F Penelope-NOM.SG.F
νοστήσαντά *σε* *δεῦρ'* ...
 having returned-PRT.AOR.ACT.ACC.SG.M you-2.P.ACC.SG hither

'Does circumspect Penelope already know, that you have returned home ...'

('Weiß es die umsichtige Penelopeia schon genau, dass du hierher heimgekommen ...')

Related to the AcP we find the use of different verbs with an accusative in conjunction with a predicative adjective in all the examined languages, because the participle of the verb 'to be' can be presumed:

- (31) Late Hittite KUB V 9 Vs. 4f.

ti-ti-iš-ša-al-li-in-wa *ŠA* *MU*
 child-ACC.SG.N-SPEECH.PART GEN.PART year
^{3KAM} *ša-ak-nu-wa-an-da-an* *IGI-u-en*
 3-DET impure-ACC.SG.C we have seen-3.PL.IND.PRET.ACT

'It is a three year old child we have seen soiled'

('Ein dreijähriges Kleinkind haben wir unrein gesehen')¹²

12. The Badal-construction is ignored here; cf. Friedrich (1960: 123f.); cf. Lühr (2002).

- (32) Old Indian RV 2,33,4

bhiṣáktamaṃ *tvā*
best doctor-ACC.SG.M you-2.P.ACC.SG

bhiṣájāṃ *śṛṇomi*
doctors-GEN.PL.M I hear-1.SG.IND.PRES.ACT

'I hear that you are the best doctor of all doctors'
(‘Ich höre, dass du der beste Arzt der Ärzte bist’)

- (33) Old Indian RV 10,86,11

indrāṇīm *āsú* *nāriṣu* *subhágām*
Indrāṇi-ACC.SG.F these-LOC.PL.F ladies-LOC.PL.F happy-ACC.SG.F

ahám *aśravam/* *nahy* *āsyā*
I-1.P.NOM.SG I heard-1.SG.IND.IPFV.ACT not-for her-3.P.GEN.SG.F

aparām *caná* *jarásā*
in the future PART senility-INSTR.SG.M

márate *pátir*
he dies-3.SG.IND.PRES.MED spouse-NOM.SG.M

'Among these Ladies, I have heard Indraṇi (to be) blessed, because her spouse will not die of old age in the future'

(‘Unter diesen Herrinnen, so hörte ich, ist Indraṇi die Glückliche, denn nicht wird auch in Zukunft ihr Gemahl an Altersschwäche sterben’)

- (34) Old Indian RV 8,33,17

indraś cid ghā tād *abravīt* *striyá*
Indra even PART that-ACC.SG.N he said-3.SG.IND.IPFV.ACT woman-GEN.SG.F

aśāsyám *mánaḥ/*
unteachable-ACC.SG.N mind-ACC.SG.N

utó áha krátum *raghúm*
and certainly insight-ACC.SG.M light-ACC.SG.M

'Even Indra has said that the mind of a woman is impossible to teach and their insight is too light (small)'

(‘Auch Indra hat das gesagt, dass der Sinn der Frau unbelehrbar, und ihre Einsicht zu leicht (gering) ist’)

- (35) Avestian Yasna 43,11

taṭ *vərəziieidiīāi* *hīiaṭ* *mōi*
that-ACC.SG.N to do-INF which-ACC.SG.N me-1.P.DAT.SG

mraotā *vahištām*
you tell-2.PL.IND.PRES.ACT the best-ACC.SG.N

'I want to do that about which you tell me that it is the best'

(‘ich will das tun, von dem ihr mir sagt, dass es das Beste ist’)

- (36) Old Indian RV 1,81,8
mādāyasva *suté* *sácā*
 intoxicate-2.SG.IMP.PRES.MED pressed-LOC.SG.M together with
śávase *śūra* *rādhasē/*
 power-DAT.SG.N hero-VOC.SG.M generosity-DAT.SG.N
vidmá *hí* *tvā* *purūvásum*
 we know-1.PL.IND.PFV.ACT for you-2.P.ACC.SG rich-ACC.SG.M
 ‘Intoxicate yourself with pressed soma, O hero, with power and generosity, for
 we know that you are very wealthy’
 (‘Berausche dich bei dem ausgepressten Soma, o Held, zur Kraft, zur
 Freigebigkeit, denn wir wissen, dass du güterreich bist’)
- (37) Avestian Yasna 28,10
aṭ *yāng* *ašāatcā*
 but-PART those of which-ACC.PL.M with truth-ABL.SG.N
vōistā *vaṅhēušcā* *dāθēng*
 you know-2.SG.IND.PFV.ACT good-GEN.SG.N-and harmonizing-ACC.PL.M
mananḥō/ *ərəθβāng*
 thought-GEN.SG.N righteous-ACC.PL.M
 ‘(For those) of which you know that they agree with the truth and the good
 thought (and) are righteous’
 (‘(Für die) von denen du weißt, dass sie übereinstimmen mit der Wahrheit und
 dem guten Gedanken (und) rechtschaffen sind’)

2.1.4 *that*-clause

We are now approaching the finite end of the inflection scale. The structures corresponding to *that*-clauses with inflected verbs deserve our attention. They are to be found in late Hittite:

- (38) Late Hittite KUB XXI 38 Rs. 13f.¹³
[ki-nu-un²/GI]M-ya *I-DI* *ku-it-za*
 [now/as soon as]-and he knows-3.SG.IND.PRET.ACT that-REFL.PART
 KUR^{URU}*Mi-iz-ri* KUR^{URU}*Ha-at-ti-ya* 1^{EN} KUR^{TIM}
 country-DET-Egypt country Hatti one country
ki-ša-ri
 it becomes-3.G.IND.PRES.MED
 ‘And [now/as soon as] I know that the country Egypt and the country Hatti
 will become one (single) country ...’
 (‘Und [jetzt/sobald] ich weiß, dass das Land Ägypten und das Land Hatti ein
 (einziges) Land werden ...’)

13. Some of the following examples are from Coticelli-Kurras (1995: 87ff.).

- (39) Late Hittite KBo IV 4 IV 28f.

ma-ah-ha-an-ma LŪ^{MEŠ} URU*Az-zi* *a-ú-e-ir*
 as-but-PART people-NOM.PL. DET-Azzi they saw-3.PL.IND.PRET.ACT
 URU^{DIDL.HI.A} *BĀD-kán* *ku-it za-ah-hi ya-az kat-ta*
 cities-PL fortification-PART that battle-ABL.SG.C PFX
da-aš-ki-u-wa-an te-eh-hu-un
 subdue-SUPINE I began-1.SG.IND.PRET.ACT
 ‘however as the people of Azzi saw that I began to take the fortified cities in
 battle ...’
 (‘als aber die Leute von Azzi sahen, dass ich feste Städte im Kampf einzuneh-
 men begann ...’)

In contrast to Vedic there are real *that*-clauses in Old Avestan. This is evident in the Old Avestan conjunction *hiiat*, which differentiates itself from later Avestan *yaŋ*, and Vedic *yád* by its initial *h*-. It is apparently the result of the correlative unit Avest. *ho yo* ‘the one which’ (Vedic *sá yáh*).¹⁴

- (40) Avestan Yasna 46,15

haēcaŋ .aspā vaxšiiā vō
 Haēcaŋaspas-VOC.SG.M I will tell-1.SG.IND.FUT.ACT YOU-DAT.PL
spitamāŋhō hiiat dāŋōng vīcāiiaŋā
 Spitamas-VOC.PL.M that just-ACC.PL.M you may separate-2.PLSBJV.AOR. ACT
adāŋqscā.
 unjust-ACC.PL.M
 ‘O Haēcaŋaspas, I will tell you, o Spitamas, that you must decide between the
 just and the unjust’
 (‘O Haēcaŋaspas, ich werde euch sagen, o Spitamas, dass ihr zwischen Gerech-
 ten und Ungerechten unterscheiden sollt’)

that-clauses are also common to Old Persian. The conjunction is *taya*, a contrac-
 tion of correlating *ta ya* ‘that which’ (Vedic *tád yád*).¹⁵

- (41) Old Persian DB § 13

mātayamām xšnāsātiy, taya
 not-that-me-1.P.ACC.SG he may discover-3.SG.SBJV.PRES.ACT that
adam naiy Bərđiya amiy
 I-1.P.NOM.SG not Smerdis I am-1.SG.IND.PRES.ACT
 ‘that they not discover, that I am not Smerdis’
 (‘damit sie nicht erfahren, dass ich nicht Smerdis bin’)

14. A different opinion in Hoffmann & Forssman (1996:164).

15. Hoffmann (1975:74; 1976:406 note 5).

In Greek *that*-clauses occur with verbs of ‘vision’, ‘cognition’, ‘knowledge’ and ‘speaking’, whereas Latin implements the AcI and the AcP with verbs of ‘vision’, as mentioned above.

- (42) Old Greek Iliad H 448f.

ούχ ὀράας ὅτι δῆ ἀῦτε κάρη
not you see-2.SG.IND.PRES.ACT that PART again heads-ACC.PL.N

κομόωντες Ἀχαιοί/ τεῖχος
long haired-NOM.PL.M Achaeans-NOM.PL.M wall

ἔτειχίσσαντο νεῶν ὑπερ
they built-3.PL.IND.AOR.MED ships-GEN.PL because of

‘Don’t you see that the heads of long haired Achaeans have once again walled up a wall to protect the ships ...’

(‘Siehst du nicht, dass nun wieder die am Haupte langgehaarten Achaier eine Mauer gemauert haben zum Schutz der Schiffe ...’)

- (43) Old Greek Iliad Λ 408

οἶδα γὰρ ὅτι κακοὶ μὲν
I know-1.SG.IND.PFV.ACT for that bad ones-NOM.PL.M PART

ἀποίχονται πολέμοιο
they leave-3.PL.IND.PRES.MED fight-GEN.SG.M

‘I know well that only the bad avoid the fight’

(‘Weiß ich doch, dass nur Schlechte aus dem Kampfe weichen’)

- (44) Old Greek Iliad P 655

εἰπεῖν ὅτι ῥά οἱ πολὺ φίλτατος
say-INF that PART him-3.P.DAT.SG.M much most loved-NOM.SG.M

ᾤλεθ¹ ἐταῖρος
he perished-3.SG.IND.AOR.MED comrade-NOM.SG.M

‘In order to tell (Achilles) that the companion far dearest to him is slain’

(‘um zu sagen, dass ihm der weit liebste Gefährte zugrundegegangen ist’)

Old Saxon displays the normal construction for *that*-clauses with all the mentioned verbs, so that examples are superfluous.

2.1.5 Main clauses

The end of the scale of inflection is constituted by subordinated main clauses. Subordination can be marked by special words, as is the case with the so-called “quotative constructions”. Thus, in Vedic we have structures in the function of a sentential object delimited with a postpositional adverb *iti* ‘so’:

- (45) Old Indian RV 10,146,4

vásann *araṇyānyāṃ* *sāyám*
being-PRT.PRES.ACT.NOM.SG.M wilderness-LOC.SG.F in the evening

ákruṣad *íti* *manyate*
he screamed-3.SG.IND.AOR.ACT QUOT he thinks-3.SG.IND.PRES.MED

'Who ever is in the woods in the evening, thinks someone screamed (for help)'
(*'Wer des Abends im Walde weilt, meint, es habe einer (um Hilfe) geschrien'*)
This usage is very common in later times.

- (46) Old Indian Bṛhadāraṇyaka-Upaniṣad 1.2.5

sá *aikṣata:* *yádi* *vá*
he-NOM.SG.M thought to himself-3.SG.IND.IPFV.MED when indeed

imám *abhimaiṅsyé,* *kánīyó*
this one-ACC.SG.M he will pursue-3.SG.FUT.MED less-ACC.SG.N

'nnaṃ *kariṣya* *íti.*
food-ACC.SG.N he will get-3.SG.FUT.MED QUOT

'He thought to himself, that were he to kill this one, not to have enough food'
(*'Er dachte bei sich, dass er, wenn er diesen tötete, an Speise zu kurz kommen würde'*)

- (47) Old Indian Bṛhadāraṇyaka-Upaniṣad 1.3.2

té *ha* *devá* *ūcur:*
these-NOM.PL.M PART gods-NOM.PL.M they said-3.PL.IND.PFV.ACT

hántásurān *yajná*
PART-Asuras-ACC.PL.M sacrifice-LOC.SG.M

udgīthénātyáyāméti
Udgītha-INSTR.SG-M-let us outdo-PFX-1.PL.SBJV.PRES.ACT-QUOT

'The gods said: 'Let us outdo the Asuras at the sacrifice by means of Udgītha''
(*'Die Götter sagten: 'Lasst uns die Asuras beim Opfer durch den Udgītha übertreffen.'*)

Similarly the comparable structure in Avestan with *u'ti:*

- (48) Avestan Yašt 19,53

ušta *ahmāi* *naire* *mainiīāi/*
as desired-ADV this-DAT.SG.M man-DAT.SG.M I think-1.SG.IND.PRES.MED

uīti *mraoṭ* *ahurō* *mazdā/*
QUOT he spoke-3.SG.AOR.INJ.ACT Ahura-NOM.SG.M Mazda-NOM.SG.M

āi *ašāum* *zaraθuštra*
o-INTERJ ašalike-VOC.SG.M Zarathustra-VOC.SG.M

'Good for the man, I think, thus spoke Ahura Mazda, o ašalike Zarathustra'
 ('Wohl dem Manne, denke ich, so sprach Ahura Mazda, o ašahafter
 Zarathustra')¹⁶

In Anatolian, Greek and Latin we find 'quotative constructions' combined with verbs of 'speaking': *wa(r)*, *ἦ* and *inquit*, *inquam*. For instance in Greek:

(49) Old Greek Iliad A 215ff.

...	προσέφη		πόδας		ἄκῶς	
	PFX-he spoke-3.SG.IND.IPFV.ACT		feet-ACC.PL		quick-NOM.SG.M	
	Ἀχιλλεύς/	χρῆ	μὲν		σφωίτερόν	
	Achilles-NOM.SG.M	it is necessary	PART		both of your-ADJ.NOM.SG.N	
	γε	θεᾶ	ἔπος		εἰρύσασθαι/	
	PART	goddess-VOC.SG.F	word-NOM.SG.N		respect-INF.AOR.MED	
	καὶ	μάλα	περ	θυμῶ	κεχολωμένον	
	and	very	PART	heart-DAT.SG.M	being angry-PRT.PRF.MED.ACC.SG.M	
	ὥς	γὰρ	ἄμεινον/	ὅς	κε	θεοῖς
	so	for	better-ACC.SG.N	who-NOM.SG.M	PART	gods-DAT.PL
	ἐπιπειθῆται		μάλα	τ'	ἔκλυον	
	PFX-he will obey-3.SG.SBJV.PRES.MED		gladly	so	they heard-3.PL.IND.AOR.ACT	
	αὐτοῦ./	ἦ		καὶ	...	
	him-GEN.SG.M	he spoke-3.SG.IND.AOR.ACT		and		

'... quick Achilles spoke, 'Both of your statements, o goddess, must be obeyed, even when angry at heart, for it is better, who ever obeys the gods, they are the ones the gods tend to hear,' he spoke and ...'

('... sprach der schnelle Achilleus: 'Euer beider Worte, o Göttin, muss man gehorchen, wenn auch sehr im Herzen erzürnt; denn so ist es besser; wer den Göttern gehorcht, den pflegen auch sie zu erhören,' sprachs und ...'; Hock 1982: 62ff.).

Such constructions need not be further pursued here, however, because they are of no consequence for the question of whether the above competitors for the object clause function reflect underlying Indo-European syntax. They are far too diverse that a common Proto-Indo-European structure could possibly be deduced from them. It is also not justified to assume that the deverbal abstract formation in Hittite comes from Proto-Indo-European, because it only turns up in the Anatolian languages. The productive deverbal formation of abstract nouns is a process which can crop up in languages at any time, as can be seen in the case of Armenian (Lühr 1999).

16. Rix (1979: 733ff.); Hettrich (1988: 396ff.).

And the other way around we are prevented from assuming an infinitive object clause as a basic Indo-European element because it is missing in the Anatolian evidence. The only piece of Proto-Indo-European syntax available is a participle construction or a construction with a predicative adjective. These constructions can be found in all the older Indo-European languages we have treated.

2.2 The prototypical *that*-clause competitors

2.2.1 *The accusativus-cum-participio/adjectivo construction*

Assuming that the AcP represents a basic Indo-European *that*-clause competitor in the function of a grammatical object, what does that tell us about the syntactic structure of Proto-Indo-European? What kind of assertion is denoted by the AcP in the old Indo-European languages we are considering? Before these questions can be dealt with in greater detail, a brief word about the status of Anatolian with respect to the rest of the Indo-European languages: recent research indicates that Anatolian did indeed diverge from the rest earlier, but not extremely long before the other languages. It would not be considered a ‘sister’ of Proto-Indo-European but rather the ‘eldest daughter’ (Zeilfelder 2001). In this case the meaning of individual grammatical categories in Anatolian can very well represent the more ancient linguistic data. With respect to the AcP this suggests that the functional meaning of the single participle in Hittite, which is formed with the suffix *-ant*, may well be old. For transitive verbs it is passive, for intransitive verbs it is active-intransitive (Friedrich 1960: 144). In the case that a passive participle with the meaning ‘protected’, ‘deceased’ exists in an AcP construction, as indicated by the case of participles formed with *-ant* in the Hittite examples or the case of passive participles with the meaning ‘cooked’ and ‘born’ formed with *-tá-* in the Old Indian examples or the case of the passive participle with the meaning ‘vanquished’ formed with *-an* in the Old Saxon example, then not only events like the ‘rising of the sun’ or transitory states like ‘hanging from a gallows’ can be denoted, permanent states like ‘being deceased/dead’ can also. AcP constructions can therefore contain stage-level or individual-level predicates.¹⁷ In contrast only permanent, inherent properties are denoted by the “accusative + predicative adjective” construction, because the participle of the verb ‘to be’ can be understood.

Differentiating the AcP constructions as to whether they contain stage-level or individual-level predicates results in a dichotomy. Those constructions with

17. Cf. Carlson (1980); Lühr (2002a, 2005). Modern English behaves differently since no individual-level predicates are permitted in participial complements. i.e., **John was being tall* compared with *John was being obnoxious* (Felser 1998: 362).

individual-level predicates belong to the class of examples in which the main verb is one of 'speaking', 'opinion' or 'belief' and in Old Saxon of 'vision'. The AcP generally involves a passive participle, as evident in the Hittite example (17): "to me he called him deceased" ("mir hat er ihn als gestorben bezeichnet"), or in the reformulation of the Old Indian examples (21) "I think that this newest (sacrifice) is a well cooked one" ("Ich halte diese neueste (Spende) für eine gut gekochte") and (22) "they said that from there (from the seed) Ṛṣi Vasiṣṭh is born" ("sie bezeichneten den Ṛṣi Vasiṣṭh als einen daraus [aus dem Samen] Geborenen"). Or in the translation of the Old Saxon example (26): "When did anyone see you vanquished by such deficits?" ("Wann sah dich irgend jemand von solchem Mangel bezwungen?"). Participles of intransitive verbs are also quite possible: the Old Indian example (20) "Who thinks that Indra is, that he be present?" ("Wer meint wohl, dass Indra ist, dass er gegenwärtig?").

The verbs of 'vision' and 'hearing' on the other hand display stage-level predicates if the participle is active. Consider the Old Indian examples (18), (19): "we wish to see the sun rise again" ("wir möchten noch die Sonne aufgehen sehen"); and "For I hear, that you punctually remunerate ..." ("Denn ... ich höre dich pünktlich vergelten ..."). In such constructions the so called 'simultaneity condition' applies. This means "the event or situation depicted by the participial complement must be interpreted as occurring simultaneously with the act of perceiving", Felser (1998: 352).

The classification evidence for the AcP with the main verb 'to know' varies. Greek exhibits an individual-level predicate – cf. (28) "those of whom you know that they bear the greatest affliction among mankind ..." ("von denen ihr wisst, dass sie am meisten Jammer tragen unter den Menschen").¹⁸ Old Saxon, however, has a stage-level predicate; cf. (29) "... where he knew that God's child, the body of his Lord hung" ("... wo [am Galgen] er wusste, dass das Gotteskind, der Leichnam seines Herrn hing"). But for the most part one can delineate the two AcP construction alternatives by the semantics of their predicates. The individual-level predicate type belongs to the so called 'small clauses' (Staudinger 1997: 70) and the stage-level predicate type belongs to the 'perception complements'.¹⁹

18. The construction of 'to know' with AcI is a new development in Homer in any case, as proven by the fact that of the numerous occurrences of εἰδέναι only five are constructed this way (Chantraine 1963: 327). Starting from the factual verb 'to know', the Greek AcP went on to include further factual verbs, such as verbs of 'reference', of 'narration' and on to ποιεῖν in the sense of poetic presentation.

19. The conclusion that small clauses and related structures were used as complements in Indo-European is already reached by Miller (2002) on the basis of partly complementary data.

No matter how these two types are to be differentiated within the framework of Chomsky's 'minimality concept' (Felser 1998: 351ff.), they do have one thing in common. Just like the AcI constructions, they belong to those constructions for which one assumes exceptional case marking (ECM).²⁰ That is, the case marking is provided by the main verb whereas the θ -role is supplied by the embedded predicate. In any case categories like "complementizer" (C) and INFL are missing, so that small clauses and perception complements must be considered "bare verb phrases" (VP's).

2.2.2 The explicative clause

Until now we have shown that one of the characteristics of the Indo-European source language is that it has ECM-constructions and distinguishes itself by this feature from the contemporary Balkan languages, for example, which have replaced the AcI;²¹ compare:

- (50) Modern Greek
θελω, ναηρθες
 'I want you to come'
 versus
 (7) Latin Plautus, Amphitruo 980
volo deludi illunc
 'I want that he be ridiculed'
 ('ich will, dass jener verspottet wird')

And there is yet another syntactic curiosity. There were indeed *that*-clauses in the function of object complements in the Indo-European source language. Such subordinate clauses however carry a reference element, either a noun or a pronoun, so that they are actually attributive clauses. Consider the examples from the Vedic, Avestan and Greek with a noun as reference element:²²

- (51) Old Indian RV 5,31,6
prá te púrvāṇi káraṇāni vocam
 PFX of you-GEN.SG early-ACC.PL.N deed-ACC.PL.N I tell-1.SG.INJ.AOR.ACT
prá nūtanā maghavan yá
 PFX newest-SUPERL.ACC.PL.N bounteous one-VOC.SG which-ACC.PL.N

20. According to Felser (1998: 366), standard ECM complements differ from perception constructions in English in that they lack passive counterparts:

**It was seen snowing versus John was expected to draw a circle*

21. Compare Greek *τελω, να φρω*; serb. *želim, da jedem* literally "I wish that I eat."

22. Rix (1979: 733ff.); Hettrich (1988: 396ff.).

cakārtha/ *śáktīvo* *yád*
 you have done-2.SG.IND.PFV.ACT mighty-VOC.SG that
vibhárā *ródasī* *ubhé*
 you divided-2.SG.SBJV.PRES.ACT²³ world-ACC.DUAL.N both-ACC.DUAL.N.
 'I want to tell your early deeds, the newest that you, talented one, have done,
 that you, mighty one, divided the hemispheres'
 ('Deine früheren Taten will ich verkünden, deine neuesten, die du Gabenreicher
 getan hast, dass du Mächtiger beide Welthälften trenntest')

(52) Old Indian RV 1,131,4

vidúṣ *te* *asyá* *vīryásya*
 they know-3.PL.IND.PFV.ACT of you-GEN.SG this-GEN.SG.N deed-GEN.SG.N
pūrávaḥ / pūro yád indra śáradīr
 Purus-NOM.PL.M. castle-ACC.PL.F that Indra-VOC.SG autumnal-ACC.PL.F
avátiraḥ
 you destroyed-2.SG.IND.IPFV.ACT
 'The Pūru's know this deed of yours that you, Indra, destroyed the autumn
 castles'
 ('Die Pūrus kennen diese Heldentat von dir, dass du, Indra, die herbstlichen
 Burgen niederwarfst')

(53) Avestan Yašt 15,12

auuaṭ *āiiaptəm* *dazdi* *mē...* *yaṭ*
 this-ACC.SG.N success-ACC.SG.N grant-2.SG.IMP.PRES.ACT me-1.P.DAT.SG that
bauuāni *aiβi vaniiā* *vīspe*
 I become-1.SG.SBJV.PRES.ACT over victor-NOM.SG.M all-ACC.PL.M
daēuua *mašiiāca*
 Daēvas-ACC.PL.M humans-ACC.PL.M
 'grant me this success, that I become victor over all Daēvas and humans'
 ('schenke mir diesen Erfolg, dass ich Sieger werde über alle Daēvas und Menschen')

(54) Old Greek Iliad A 411f.

γνῶ *δὲ* *καὶ* *Ἄτρείδης...*
 he may know-3.SG.SBJV.AOR.ACT PART and son of Atreus-NOM.SG
ἦν *ἄτην,* *ὃ* *τ'ἄριστον*
 one's own-ACC.SG.F blindness-ACC.SG.F that best-SUPERL.ACC.SG.M
Ἀχαιῶν *οὐδὲν ἔτεισε*
 Achaeans-GEN.PL.M not he honoured-3.SG.IND.AOR.ACT

23. The subjunctive refers to events in the past (Hoffmann 1967: 244).

‘and (that) the son of Atreus may know his own error, and (the fact) that he in no way honoured the best of the Achaeans’

(‘und es erkenne auch der Atride ... seine Verblendung, dass er den besten der Achaier für nichts geachtet hat’)

And with a pronominal reference element:

- (55) Old Indian RV 1,116,5

anārambhaṇé *tád avīrayethām*
having no support-LOC.SG.M that you accomplished-2.DUAL.IND.IPFV.ACT

anāsthāné *agrabhaṇé*
bottomless-LOC.SG.M having nothing which can be grasped-LOC.SG.M

samudré/ *yád aśvinā* *ūhāthur*
sea-LOC.SG.M that Aśvins-VOC.PL you led-2.DUAL.IND.PFV.ACT

bhujyúm *ástam*
Bhujyu-ACC.SG.M home

‘You accomplished that (deed) in the sea, that has no hold, no solid bottom, without handle, that you led Aśvins the Bhujyu home’

(‘Das vollbrachtet ihr als Heldentaten im Meer, das ohne Anhalt, ohne festen Grund, ohne Handhabe ist, dass ihr Aśvins den Bhujyu nach Hause fuhret’)

This construction is not restricted to the function of an object clause. It also occurs in the function of a subject clause. Consider the Hittite, Old Indian and Latin examples:

- (56) Hittite KBo IV 8 II 12ff.

am-me-el *ka-a-aš-pát* *1-aš*
of me-GEN.SG this-NOM.SG.C-PART only-NOM.SG.C

dam-me-eš-ha-aš *ki-ya-an* *1-an*
reproach-NOM.SG.C this-ACC.SG.N-her-3.P.ACC.SG.C only-ACC.SG.C

dam-me-eš-ha-an-nu-un-nu-un *IŠ-TU* *É.GAL^{LIM}-pát-kán* *ku-it*
I punished-1.SG.PRET.ACT from palace-PART.PART that

kat-ta *u-i-ya-nu-un*
forth I send-1.SG.PRET

‘this (is) my only reproach, with this alone have I corrected her, that I sent her forth from the palace’

(‘eben dies (ist) meine einzige Maßregelung, damit allein habe ich sie gemäßregelt, dass ich sie eben aus dem Palast fortgeschickt habe’)

- (57) Old Indian RV 1,93,4

ágniṣomā *céti* *tád vīryàṇ*
Agni-Soma-VOC.DU.M and-thus that heroic deed-NOM.SG.N

vāṃ / yád ámuṣṇītam avasám
of you-GEN.DUAL that you stole-2.DUAL.IND.IPFV.ACT food-ACC.SG.N

paṇīm gāḥ
Paṇi-ACC.SG.M COWS-ACC.PL.F

‘Agni and Soma, your **heroic deed** is famed, **that** you stole the food from Paṇi, his cows’

(‘Agni und Soma, bekannt ist diese Heldentat von euch, (nämlich) dass ihr dem Paṇi seine Nahrung, die Kühe raubtet’)

(58) Old Indian RV 5,47,5

idám vápur nivácanaṃ janāsaś /
that-NOM.SG.N miracle-NOM.SG.N mystery-NOM.SG.N people-VOC.PL.M

cáranti yán nadyàs tasthúr
they wander-3.PL.IND.PRES.ACT that river-NOM.PL they stand-3.PL.IND.PFV.ACT

ápah / dvé yád īm
water-NOM.PL.F two-NOM.DUAL.F that PART-him

bibhṛtó mātúr anyé /
they carry-3.DUAL.IND.PRES.ACT mother-ABL.SG.F other-NOM.DUAL.F

ihéha jāté yamyà
here-here born-NOM.DUAL.F twins-NOM.DUAL.F

sábandhū
being of the same stem-NOM.DUAL.F

‘That is a miracle, a mystery, you people, **that** the rivers wander, the waters stand still, **that** not his mother but two others carry him, born here and there and yet twins of the same tribe’

(‘Das ist ein Wunder, ein Geheimwort, ihr Leute, dass die Flüsse gehen, die Wasser stehen; dass ihn zwei andere als die Mutter tragen, die hier und dort geboren doch Zwillinge und von gleicher Sippe sind’)

(59) Latin Plautus, Mercator 396

id illi vitiom
that-NOM.SG.N him-3.P.DAT.SG.M deficit-NOM.SG.N

maxumst, quod nimis tardus
greatest-SUPERL.NOM.SG.N.SUPERL that too sluggish-NOM.SG.M

est
is-3.SG.IND.PRES.ACT

‘that is his greatest deficit, **that** he is too sluggish’
(‘das ist sein größter Fehler, dass er zu träge ist’)

To sum up so far, the apparently very modern construction principles – they are quite common in contemporary German – are certainly inherited from the Indo-European source language. In their function as object or subject clauses *that*-clauses must have a noun or pronoun as a referential element. In the case

of the object function those verbs that semantically permit *that*-clauses must be specified with the feature [+ NP] in the lexicon. If however no explicative clause is chosen in the oldest Indo-European languages, the expressible content involved can be formulated as a coordinated clause or as a relative clause with reference to a marker of a person (noun or pronoun) counterpart in the main clause:

(60) Old Indian RV 1,117,6

<i>tád</i>	<i>vām</i>	<i>narā</i>	<i>śámsyam</i>
this-ACC.SG.N	of you-2.P.GEN.DUAL	lords-VOC.PL.M	to be told-ACC.SG.N
<i>pajriyéṇa</i>	<i>kakṣívatā</i>	<i>nāsatyā</i>	
Pajriya-INSTR.SG.M	Kakṣivat-INSTR.SG.M	Nāsatyas-VOC.PL.M	
<i>párijman/</i>	<i>śaphád</i>	<i>áśvasya</i>	
during his trip-LOC.SG.M	hoof-ABL.SG.M	horse-GEN.SG.M	
<i>vājño</i>	<i>jánāya</i>	<i>satám</i>	
prize winning-GEN.SG.M	people-DAT.SG.M	hundred	
<i>kumbhán</i>	<i>asiñcatam</i>	<i>mádhūnām</i>	
jugs-ACC.PL.M	you poured-2.DUAL.IND.IPV.ACT	sweet drinks-GEN.PL.N	

'Kakṣivat Pajriya must tell **this** (deed) of yours during his trip, you lords of Nāsatyas: You have poured one hundred jugs of the sweet drink from the hoof of the prize horse for his people'

('Diese (Tat) von euch muss Kakṣivat Pajriya laut verkünden auf seiner Fahrt, ihr Herren Nāsatyas: Aus dem Hufe des preisgewinnenden Rosses schenket ihr seinen Leuten hundert Krüge der süßen Getränke ein')

(61) Old Indian RV 5,85,5

<i>imám</i>	<i>ū</i>	<i>śv</i>	<i>āsurásya</i>	<i>śrutásya</i>
this-ACC.SG.F	PART	well-PART	Asurian-GEN.SG.M	famous-GEN.SG.M
<i>māhím</i>	<i>māyám</i>	<i>varuṇasya</i>	<i>prá</i>	<i>vocam/</i>
great-ACC.SG.F	feat-ACC.SG.F	Varuṇa-GEN.SG.M	PFX	I declare-1.SG.INJ.AOR.ACT
<i>máneneva</i>	<i>tasthiváñ</i>		<i>antárikṣe</i>	<i>ví</i>
yardstick-INSTR.SG.N-like	standing-PRT.PFV.ACT.NOM.SG.M		air-LOC.SG.N	PFX
<i>yó</i>	<i>mamé</i>		<i>pṛthivím</i>	
who-NOM.SG.M	he has measured-3.SG.IND.PFV.MED		earth-ACC.SG.F	
<i>súryeṇa</i>				
sun-INSTR.SG.M				

'I want to declare **this great artistic feat of the famous Asurian Varuṇa**, who measured the earth with the sun by standing in the air like with a yardstick'

('Dieses große Kunststück des berühmten asurischen Varuṇa will ich fein verkünden, der in der Luft stehend wie mit dem Messstabe die Erde mit der Sonne abgemessen hat')

Compare the evidence in the following table:

Table 1. The distribution of *that*-clause-competitors in the Indo-European languages

	Early Hittite	Late Hittite	Old Vedic	Later Vedic	
Abstract de-verbal nouns	√	√	√		
AcI: with verbs of 'volition'			√		
AcI: with verbs of 'belief', 'opinion', 'knowledge', 'speaking', 'hearing'					
AcI: with verbs of 'cognition', 'vision', <i>verba affectus</i>					
AcP: with verbs of 'vision'			√		
AcP: with verbs of 'vision', 'speaking'		√			
AcP: with verbs of 'hearing', 'knowledge'					
AcP _{PAST} : with verbs of 'hearing', 'knowledge'					
AcP: with verbs of 'vision', 'hearing', 'belief', 'speaking'			√		
AcADJ: with verbs of 'vision'		√			
AcADJ: with verbs of 'speaking', 'knowledge'			√		
AcADJ: with verbs of 'hearing', 'speaking', 'knowledge'			√		
explicative clause	<i>kāš + kuit</i>	noun + <i>yád, tád/ idám + yád</i>			
demonstrative + main clause/relative clause		√			
<i>that</i> -clause: with verbs of 'knowledge', 'vision'		<i>kuit</i>			
<i>that</i> -clause: with verbs of 'knowledge', 'speaking'?					
<i>that</i> -clause: with verbs of 'vision', 'cognition', 'knowledge', 'speaking'					
Quotative construction	<i>wa(r)</i>	<i>wa(r)</i>	<i>íti</i>	<i>íti</i>	
		Old			
	Avestian	Persian	Greek	Latin	Germanic
Abstract de-verbal nouns					
AcI: with verbs of 'volition'	√		√	√	
AcI: with verbs of 'belief', 'opinion', 'knowledge', 'speaking', 'hearing'			√	√	

(Continued)

Table 1. Continued

	Old				
	Avestian	Persian	Greek	Latin	Germanic
AcI: with verbs of 'cognition', 'vision', <i>verba affectus</i>				√	
AcP: with verbs of 'vision'	√		√	√	√
AcP: with verbs of 'vision', 'speaking'					
AcP: with verbs of 'hearing', 'knowledge'			√		√
AcPPAST: with verbs of 'hearing', 'knowledge'			√		
AcP: with verbs of 'vision', 'hearing', 'belief', 'speaking'					
AcADJ: with verbs of 'vision'					
AcADJ: with verbs of 'speaking', 'knowledge'	√				
AcADJ: with verbs of 'hearing', 'speaking', 'knowledge'					
explicative clause	noun + <i>yaŋ</i>		noun + δ	<i>id + quod</i>	
demonstrative + main clause/relative clause					
<i>that</i> -clause: with verbs of 'knowledge', 'vision'	?				√
<i>that</i> -clause: with verbs of 'knowledge', 'speaking'?	<i>hiiaŋ</i>	<i>taya</i>			√
<i>that</i> -clause: with verbs of 'vision', 'cognition', 'knowledge', 'speaking'?		?	$\delta\tau\iota$		√
Quotative construction	<i>u'ti</i>		$\hat{\eta}$	<i>inquit, inquam</i>	

The table shows the amount of syntactic variation; Vedic, Greek and Latin are the languages which have the most *that*-clause-competitors. But while Greek and Latin have real *that*-clauses, this sentence type does not arise before late Vedic.

2.3 The change in meaning from 'what' to 'that'

Now the question is whether the explicative complex "reference element + *that*-clause" can be brought into harmony with the other constructions that exhibit a

formal correspondent to the conjunction *that*. To this end let us examine the Vedic and Hittite data. Beside the obvious relative clauses Vedic displays subordinate clauses which must be considered adverbial clauses introduced by the conjunction *yád*. The conjunction has completely different meanings: ‘as’, ‘when’, ‘although’, ‘in order to’, ‘for’ and ‘because’. As in the case of the explicative clauses they can contain an element referring to the main clause: *tád, ádha, áthā, ád, átra, átas, tátas*.²⁴ Because among these reference elements *tád* (the demonstrative counterpart to the relative component *yád*) also appears, it has been assumed that those Vedic adverbial clauses introduced by *yád* are derived from relative clauses.²⁵ An explanation for the origin of ‘causal’, ‘intentional’, and ‘concessive’ adverbial meaning is basically to be found in the temporal accusative function (*accusativus temporis*) of *tád* ‘at that time’ (Abraham 1976: 41) which is picked up in the relative clause by *yád*. However, because TIME-clauses, as seen in many languages, do not necessarily require a reference element and may then retain an empty HEAD,²⁶ *yád* can be used on its own temporally in the sense ‘at which time’, ‘when’.²⁷ The same thing is the case with PLACE-clauses so that *yád* can also be used in the sense ‘at which place’, ‘where’. With respect to the temporal and positional use of accusative singular neuter pronouns consider Old Indian *idám* ‘now’, ‘here’. If, however, a subordinate clause is introduced by a word which may have the meaning ‘where’, then the dependent clause can be a conditional one. Consider the following:

- (62) *Wo gehobelt wird, (da) fallen Späne.*
Wenn gehobelt wird, (dann) fallen Späne. (Zaefferer 1991: 81)

The fact that such a change in meaning must be assumed for Vedic *yád*-clauses in adverbial function explains their distribution. For the majority of *yád*-clauses the introductory element can be translated as ‘when’ (Hettrich 1988: 346ff.). Assuming that the Vedic *yád*-clauses in adverbial function were originally TIME- and also PLACE-clauses, we must check to see if it is also valid for Hittite *kuit*. This word can not only be used like Old Indian *yád* in the meaning ‘that’ (*dass*). As the accusative singular neuter of the relative pronoun *kuit* also serves as the introductory element of clauses possibly considered adverbial. Thus *kuit* does appear in Hittite

24. Hettrich (1988: 343, 356, 374, 412).

25. Cf. Rousseau (1984: 107ff.); Holland (1984: 609ff.); Harris & Campbell (1995: 26).

26. Thompson & Longacre (1985: 178f.). Concerning the use of nominal reference words as conjunctions consider Turc. *zaman* ‘when’ (past) < *zaman* ‘time’, Irish *nuair* ‘when’ < *an uair* ‘the hour’, Irish (*s*)*an áit* ‘where’ < *sa an áit* ‘at the place’, Welsh *lle* ‘where’ < *lle* ‘place’.

27. The assumption that *yád* originally took reference to a neuter noun like *áhar* ‘day’ (Delbrück (1900: 323); Lühr (1989: 162)) is not absolutely necessary.

in the meaning ‘when’ (‘in the past’) and ‘since’, but most frequently in the meaning ‘because’. But because of the overwhelming preponderance of *because*-clauses we may not assume the adverbial TIME- or PLACE-clauses to be the source of the change in meaning from ‘what’, to ‘because’. On the contrary, we must rather assume the meaning ‘what’, as is the case in Latin *quod*:²⁸

(63) a. Hittite

ŠA ÉRIN^{MES}-ma-mu ku-it ...
GEN.PART troops-PL-but-PART-me-DAT.SG because of what

ha-at-ra-a-eš
you have written-2.SG.PRET.ACT

‘Because of what you have written to me about the troops ...’

b. Hittite Mšt. 75/112 Vs 17

ki-iš-ša-an-ma-mu ku-it
in the following way-but-PART-me-DAT.SG because of what

ha-at-ra-a-eš
you have written-2.SG.PRET.ACT

‘Because of what you have written to me in the following way’
(‘Weil/was du mir folgendermaßen geschrieben hast’)²⁹

28. Cf. however Hofmann & Szantyr (1965: 572).

29. A correlative element is rather seldom; compare:

Orakel KUB V 24+ I 29ff.:

(29) nu-za-kán ^mKur DINGIR^{LUM}-ma ku-it ka-ru-ú KASKAL-ši
and-REFL-PART DET-Kur God-NOM.SG-but because earlier time-ADV

ti-ya-at A-NA MUNUS.L[UGAL?]
he appeared-3.SG.IND.PRET.ACT to queen

(30) kiš-an me-ma-an har-ta nu
so spoken-PART.PRES.PASS.ACC.SG.N he had-3.SG.IND.PRET.ACT and

A-NA DINGIR^{LIM} ku-it za-an-ki-la-tar Ú-U[L]
to God-DAT.SG because penance-NOM.SG not

(31) nu DINGIR^{LUM} A-NA MUNUS.LUGAL a-pí-iz
and God-NOM.SG to queen therefore

kar-pí-iš-ta
he is angry-3.SG.IND.PRES.MED

‘Because Kur, the God, already presented himself before (and) had spoken the queen and because the penance was not [paid] to the God, the God is therefore angered at the queen’

In summary, the meaning of the introductory conjunctions for adverbial clauses in both Vedic and in Hittite *yád* and *kuit* can be derived by a mechanism already known for relative pronouns. Now we must consider how a relative pronoun can assume the meaning 'that'. It is in fact rather common, as seen in the following examples.

- (64) a. *Il croit que trop de gens sont venus*
 'He believed **that** many people have come'
 ('Er glaubte, dass viele Leute gekommen sind')
- b. *Igor skazal čto na stolje ne bylo knigi*
 'Igor said **that** on the table there were no books'
 ('Igor sagte, dass keine Bücher auf dem Tisch waren')

But is it really possible to presume a relative pronoun in the change of meaning from 'what' to 'that' in Hittite? In contrast to Vedic *yád* the Hittite form is *kuit* and as such obviously identical to the inherited interrogative pronoun *kuit*, which also survives in Latin *quid*. The point is that in many languages in comparable contexts interrogative pronouns and relative pronouns are used in exactly the same way. It is therefore possible to generalize one of the two forms. One would expect an interrogative pronoun in indirect questions and expect the relative pronoun to be in the subordinated clause for a verb of 'speaking' in the main clause, as in the case of Greek.

- (65) a. *Συμβουλευόμεθά σοι, τί*
 we ask advice-1.PL.IND.PRES.MED you-2.P.DAT.SG what-ACC.SG.N
χρή ποιεῖν
 it is necessary do-INF.PRES.ACT
 'We ask advice **what** to do'
 ('Wir fragen dich um Rat, was zu tun ist'; Bornemann & Risch 1973: 285)
- b. *Ἀπόφηναι, ὅτι σοι δοκεῖ*
 tell-2.IMP.AOR.MED what you-DAT.SG it seems-3.SG.IND.PRES.ACT
 'Tell **what** seems right to you'
 ('Tue kund, was dir richtig erscheint')

('Weil Kur, die Gottheit, aber schon früher einmal erschienen ist (und) zur Königin so gesprochen hatte, (und) weil an die Gottheit die Sühne nicht geleistet war, ist die Gottheit der Königin deswegen böse').

30. ὅτι is the neuter of the pronoun ὅστις. It functions as a generalizing relative pronoun 'who so ever' and as indirect interrogative pronoun. But ὀ- is the stem of the old relative pronoun Indo-European *jō-.

However, the relative pronoun in Old Indian can be used with interrogative verbs:

(66) Old Indian RV 1,145,2

tám *ít* *pṛchanti* *ná simó*
 him-ACC.SG.M PART they ask-3.PL.IND.PRES.ACT not he himself-NOM.SG.M
ví pṛchati *svéneva* *dhíro*
 PFX he asks-3.SG.IND.PRES.ACT OWN-INSTR.SG.N-like a wise one-NOM.SG
máнасā *yád ágrabhīt*
 understanding-INSTR.SG.N what he comprehended-3.SG.IND.IPFV.ACT
 ‘Him they ask, not he himself, **what** he comprehended on his own
 like a wise one’
 (‘Ihn fragen sie; er selbst erfragt nicht, was er wie ein Weiser mit eigenem
 Verstand erfasst hat’)

(67) Old Indian RV 1,164,34

pṛchámi *tvā* *páram*
 I ask-1.SG.IND.PRES.ACT you-2.P.ACC.SG extreme-ACC.SG.M
ántam *pṛthivyāḥ* *pṛchámi* *yátra*
 boundary-ACC.SG.M earth-GEN.SG.F I ask-1.SG.IND.PRES.ACT where
bhúvanasya *nābhiḥ*
 world-GEN.SG navel-NOM.SG
 ‘I ask you about the extreme boundaries of the earth, I ask you **where**
 the navel of the world is?’
 (‘Ich frage dich nach der äußersten Grenze der Erde, ich frage dich,
 wo der Nabel der Welt ist?’)

Compare that to the case with interrogative pronouns:

(68) Old Indian RV 4,18,6

etá *ví* *pṛcha* *kím* *idám*
 they-NOM.PL.F PFX ask-2.SG.IMP.PRES.ACT what here
bhananti *kám* *ápo* *ádrim*
 they say-3.PL.IND.PRES.ACT what waters-NOM.PL cliff-ACC.SG
paridhím *rujanti*
 weir-ACC.SG they break-3.PL.IND.PRES.ACT
 ‘Ask them [the waters], **what** they say, **which** cliff the waters break through?’
 (‘Frage sie [die Gewässer] aus, was sie da reden, welchen Felswall die Gewässer
 durchbrechen?’)

The opposite is the case with verbs of ‘speaking’ which exhibit derivations from the root of the interrogative pronoun, i.e.,

- (69) Old Indian RV 10,129,6
- | | | | |
|-----------------------------|--------------|------------------------------|-------------------|
| <i>kó</i> | <i>addhá</i> | <i>veda</i> | <i>ká</i> |
| who-NOM.SG.M | certainly | he knows-3.SG.IND.PFV.ACT | who-NOM.SG.M |
| <i>ihá</i> | <i>prá</i> | <i>vocat</i> | <i>kúta</i> |
| here | PFX | he declares-3.SG.INJ.AOR.ACT | where |
| <i>ájātā</i> | <i>kúta</i> | <i>iyám</i> | <i>visṣṭiḥ</i> |
| born-PRT.PRET.PASS.NOM.SG.F | where | this-NOM.SG.F | creation-NOM.SG.F |
- ‘Who knows certainly, who can **declare**, **where** it came from, **where** this creation originated?’
 (‘Wer weiß es gewiss, wer kann es hier verkünden, woher sie entstanden, woher diese Schöpfung kam?’)

Because interrogative pronouns and relative pronouns can substitute for one another in the surroundings of interrogative verbs and verbs of ‘speaking’, it is quite possible that in Anatolian languages the inherited relative pronoun may have been replaced by an interrogative pronoun. A direct comparison in this case can be drawn to Latin, with the exception that there the interrogative pronoun, used as a relative pronoun in the function of nominative/accusative singular neuter is modified to *quod* following a demonstrative pronoun **tod* (cf. Old Latin *topper* < **tod-per*) in the main clause (Leumann 1977: 470, 482). We can resultantly work with the presumption of a relative pronoun in the change of meaning from ‘what’ to ‘that’ in the Anatolian languages, just like in Latin although independent of it. What is left to explain is the context in which such a change of meaning is possible. It may have taken place in the direct neighborhood of verbs that because of their own meaning permit subordinate *that*-clauses as well as *what*-clauses. Those are the verbs of ‘vision’, ‘hearing’, ‘cognition’, ‘saying’, but also of ‘deliberation’. The detailed semantic analysis of such verbs with respect to their complements is extremely complicated (Bäuerle & Zimmermann 1991: 346ff.). But there is also an intuitive interdependence between *that*-clauses and *what*-clauses because for instance with the verb ‘to say’ the *what*-clause actually presupposes the content of the *that*-clause referring to the past, while in the *that*-clause this presupposition is no longer affirmed. Thus a reanalysis must be assumed; the mechanism depends upon surface ambiguity. The underlying structure of a syntactic pattern is changed without involving any immediate or intrinsic modification of its surface manifestation (Harris & Campbell 1995: 3, 61).

The next step in its evolution to a genuine *that*-clause in the function of an object is the possibility of eliminating the reference word. This phenomenon is

some sort of standardization, compare also Cuzzolin (1994). One of two homophonous words is eliminated, which is documented in later Vedic.

- (70) Old Indian Chandogya-Upaniṣad 4,10,5
vijānāmy aham, yat prāṇo
 I understand-1.SG.IND.PRES.ACT I-1.P.NOM.SG that breath-NOM.SG.M
brahma
 Brahman-NOM.SG.N
 ‘I understand, that the Brahman is the breath’
 (‘ich verstehe, dass das Brahman der Hauch ist’; Debrunner 1948: 123)

But it is already to be found once in the Rig-Veda:

- (71) Old Indian RV 1,132,4
nú itthā te pūrvāthā ca
 now just-PART of YOU-GEN.SG like earlier-ADV and
pravācyam yād āṅgīrobhyó
 is to be proclaimed-NOM.SG.N that Aṅgiras-DAT.PL
’vṛṇor ápa vrajám
 you uncovered-3.SG.IND.IPFV.ACT PFX fenced in herd-ACC.SG
 ‘Now just as it was earlier it must be proclaimed of you, that you uncovered the fenced in herd for the Aṅgiras, o Indra’
 (‘Jetzt ebenso wie auch früher ist von dir zu verkünden, dass du für die Aṅgiras die eingehetzte Herde aufgedeckt hast’)³¹

The technically accurate description of the change from the relative pronoun ‘which’ to the conjunction ‘that’ looks like this:

- (72) [_{phrase}+wh-operator] → [_{head}-wh-complementizer]

The *wh*-phrase originally occupies the XP-position and therefore the specifier-position of a CP. Following the disappearance of the *wh*-feature, the original relative pronoun would then occupy the previously empty complementizer-position and so become the *head* of the CP.³² The evolution of the relative pronoun ‘which’ into the

31. Compare however Hettrich (1988: 406).

32. Cf.

Jenny asked [_{CP} *which of her rabbits*_i [_C] [_{IP} *she should bring t_i*]] *with*
Jan vertelde [_{CP} *waar*_i [_C] [_{IP} *hij t_i naar toe gaat verhuizen*]];
 and with ‘double filled comp’:
I woaf ned, wann daß da Sepp ookomma is (Bayer 1983/1984: 212ff.; Rizzi
 1090: 54ff.).

conjunction 'that' must be considered part of the Proto-Indo-European language because of the many explicative clauses documented in older Indo-European languages. By the way it is possible that Germanic *dass*-clauses are the descendants of primary relative clauses, too. The widely accepted theory is that of transposing clause boundaries as follows:

- (73) Old High German Otfrid II,2,8
joh gizálta in sar tház, thiú sálida untar ín was (Müller & Frings 1959: 12)

But this approach is improbable in the face of the numerous nominal and pronominal reference elements in the main clause, as seen in Old Saxon:

- (74) Old Saxon Heliand 4976f.
endi starkan êð suiðlico gesuôr, that he thes gesiðes ni uuâri.
 'and he swore a solemn oath, that he did not belong to that mob'
 ('und er schwur deutlich einen schweren Eid, dass er nicht zu jener Schar gehöre'; compare Lühr 1999a).

Such constructions can very well represent the original complex of 'reference element + relative pronoun'. The fact that Germanic *that* not only serves as demonstrative pronoun but also as a relative pronoun is easily seen:

- (75) Old High German Otfrid II,9,87
Firnim ... , thaz ih thir zálta ... (Erdmann 1874: 77).

In this case a syntactic change took place which is caused by pragmatics. In a first utterance a speaker presupposes something, using a verb of 'saying' combined with a referential element and a *that*-clause in the meaning of a *what/which*-clause.

- (76) a. I say that that (= which) he knows.
 b. I say that (= what) he knows.
 He continues speaking by making clear what the person knows.
 c. I say that that (= which) he knows that you want ...

Then one of the two homophonous words is dropped. We recapitulate: Only explicative sentences are possible New High German *that*-clause precursors. On the contrary, AcP-constructions are out of the question because they lack complementizers. They do not have a bounding node such as IPs, for the verb of the main clause subcategorizes here for VP. The explicative sentence, however, lost one of the two homophonous *that*'s in the combination *that, that ... , that, what*, and in sentences like (76) *that* 'what' is reinterpreted as 'that'. For a presupposition was no longer asserted a pragmatic change occurred.

3. Conclusion

Only two of all the *that*-clause competitors in the function of objects found in the older Indo-European languages can be considered part of the basic Proto-Indo-European language. The possibilities were deverbal abstract nouns, the AcI, the AcP and the related construction with a predicative adjective, the *that*-clause with and without a reference element in the main clause and the coordinated clause as a 'quotative construction'. One of these two is the *accusativus-cum-participio/adjectivo* construction, differentiated according to individual-level or stage-level predicates – the verb of the main clause subcategorizes here for VP. The other one is the *that*-clause containing a relational element, that is the explicative clause. Because the introductory word of the explicative clause is identical to the relative pronoun, it was possible to show, how the relative pronoun 'which' could develop into the complementizer 'that', whereby reanalysis changes an underlying structure. If however the construction 'nominal or pronominal reference element + *that*-clause' occurs in the range of verbs that permit object clauses, then the consequences for the subcategorization frame of these verbs is that they subcategorize for NP's but not for CP's. This means that *that*-clauses in Proto-Indo-European, just like adverbial clauses, were adjoined and not embedded. In both cases they were apparently originally relative clauses connected to a reference word. The subcategorization frame of a verb requiring an object can change in the course of language development, if the reference word in the main clause is dropped, as is documented among the oldest Indo-European languages in late Hittite and even once in the Rig-Veda. This process has already been accurately described by Hermann Paul (1920: 145): "Ein wichtiger Schritt zur Erzeugung komplizierter Gebilde war, dass das Objektverhältnis auf einen Satz übertragen wurde". But the question is whether the term *kompliziert* is appropriate here. For in Proto-Indo-European the *accusativus-cum-participio/adjectivo* construction and the adjoined explicative clauses in the function of objects simply represent a different syntactic type than modern German for instance. Last but not least a pragmatical change is responsible for the development into modern *that*-clauses, after dropping one of the two homophonous *that*'s. If a speaker no longer maintains a presupposition the meaning 'what' in a declarative sentence can develop into 'that'.

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