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LITHUANIAN CHIPS FROM AN APTOTOLOGIST'S WORKSHOP¹

The Lithuanian particles have suffered from no lack of detailed study. Yet the research of generations as summarised in Fraenkel 1962–1965, Stang 1966, Mažiulis *Prūsų kalbos etimologijos žodynas* (1988–1997) and Forssman 2003 has always taken its preforms from Brugmann's *Grundriss*² (Brugmann 1897–1916) and Pokorny's *Indogermanisches etymologisches Wörterbuch* (1959). Useful as these works still are, they see the particles only as *disiecta membra* rather than as a distinct morpheme-class, and provide only cursory and if at all possible nominalistic² analyses.

That the IE particles were in fact an autonomous morpheme-class on the same structural level as the roots, suffixes, and endings is proven by their non-commutability with the other three within the IE word. The word-structure formula which has served since Schleicher,

a. $\text{Word} = \text{R} (+\text{S}) +\text{E}$,

leaves the particles entirely out of account. But the particles cannot replace the other morpheme-classes, they can only precede or follow a word as defined above. Therefore the formula must be extended to

b. $\text{Word} = (\text{P}+) \text{R} (+\text{S}) +\text{E} (+\text{P})$.

However, a particle is itself a word; so that a second, entirely different, word-structure must also be allowed, namely

c. $\text{Word} = \text{P}$.³

¹ The “Chips” series (Dunkel 2007; 2008 and to appear) presents certain grammatical and etymological implications of my forthcoming *Lexikon der idg. Partikeln und Pronominalstämme* in a more coherent manner than that format allows. – Sections 1 and 2.2 of this paper were presented at the conference “Position und Bedeutung des Litauischen im europäischen Kontext” (Freiburg-Bern-Zürich, June 2008).

² By this is meant the *a priori* conviction that most particles and adverbs arose as “frozen case-forms” of (usually otherwise unknown) root-nouns.

³ Or more fully, since many particles contain adverbial endings (**pró-ti*, **én-ter*, **án-d^he*, **k^uó-r*, **kí-s*), $\text{Word} = \text{P}(+\text{E})$.

Allowing for the pre- and postposition of particles to a word, we arrive at a particle-sequence:

d. Word = (P+) P (+P).

Most generally, the formulas b. and d. can be combined as

e. Word = (P+) Word (+P).

The phenomenon of “deictic order inversion”, as in Lat. *nun-c* beside Hitt. *ki-nun* or Gr. κέ-κλυτε beside ἔδω-κε (Dunkel 2004a), is just an illustration of principle e.

The structural study of the IE primary adverbs, prepositions, conjunctions, and other “indeclinables” as a coherent category – let us call it aptotology – soon provides unexpected insights into all levels of grammar. Some well-known etymologies must in consequence be abandoned, but previously intractable aporiae can also be definitively resolved – at times due to the Lithuanian evidence.

1. The imperatival suffix *-ki-*.

The Lithuanian imperative is formed from the infinitive stem by means of the suffix *-ki-*, as in the first and second plural *-kime*, *-kite*. In the second singular the ending zero allowed the apocope of the suffix, and second singular imperatives in *-ki* were recessive already in Old Lithuanian (Stang 1966, 427).

The origin of this suffix is not yet clear. Brugmann took *-ki* as a deformation of the emphatic particle *-ka*, see fn. 15. Stang (1966, 427) speaks of a “Partikel **ki/e*” without going outside of Baltic. Against the idea of a borrowing from Finnish see E. Hamp, *Baltistica* 14 (1978), 100. An important recent proposal⁴ was A. Bammesberger’s equation of Lith. *dúok(i)* with the Latin interjection *cedo* “give here, hand over, bring” in his discussion of Lat. *fēcī* and Gr. ἔθηκε, *Studien zur Laryngaltheorie* (1984), 75f. That both forms continue the IE full-grade 2 sing. root-aorist imperative **déh3-Ø* “give!” (cf. East Lith. *duõ* “give”,⁵ Hitt. *dā* “take!”⁶ and the Slavic conjunctive and iussive particle *da*)⁷ has long been known, and the difference in word-order between *dúok* and *cedo* (“deictic order inversion”) would once again merely reflect

⁴ The ideas of K. Shields, *Baltistica* 22 (1986) 48-55 were thoroughly dismantled by Hamp 1994.

⁵ E.g. in Tverčičius, see Stang 1942, 246f.

⁶ On Hitt. *dāla* “stop! enough!” and *hūdak* “quickly” < **“Give here!”* see fn. 11.

⁷ As in expressions like *khleb da sol’* and *da zdravstouyet*, respectively; see Fraenkel, *IF* 43 (1926) 304f., fn. 3.

principle e.⁸ However, it has also long been known that Lith. *-ki* and Lat. *ce-* are phonologically irreconcilable.⁹

Lat. *ce-* continues the IE near-deictic particle **k̂e*. This has an allomorph **k̂i* due not to ablaut as classically defined (**e/o/Ø*) but rather to a type of vowel-alternation peculiar to the particles and pronominal stems (cf. e.g. the interrogative/ indefinite stem **k̂e/i-*); let us call it suppletion (we return to this in § 2). The suppletion **k̂e/i* can be well illustrated from the classical languages alone:

<i>*k̂e</i>	<i>*k̂i</i>
Gr. κ̂ε, κ̂εῖνος, κ̂έκλυτε; ἔδωκε ¹⁰	πολλάκι “oft”, τοσσάκι “so often”
Lat. <i>cedo, cēdō; ecce, nunc, sīc, hīc, hunc</i>	<i>cis, citerior, citrā</i>

An (invertible) IE verb-phrase **k̂e/i déh₃-Ø* “give (it) here” can be reconstructed from Old Phrygian *kedokey* “give here!”, Gaul. *duci* “also; and” (cf. OCS *da* “and”), and, I suggest, Hitt. *hūdāk* “quickly” < **h₂ú deh₃-Ø k̂i* “give here!”¹¹

Despite its assonance and functional identity with the above forms, Lith. *dúoki* cannot continue IE **déh₃-Ø k̂i* since IE **k̂* regularly gives Lith. *š*. That the velar of the near-deictic particle **k̂e* and of the departiculative near-deictic stem **k̂o/i-* was palatal is confirmed by Slavic, Luwian and Armenian:¹²

<i>*k̂e</i>	<i>*k̂o-</i>	<i>*k̂i-</i>
Lith.	<i>š̂e</i> “here; <i>ecce</i> ”	<i>š̂is, š̂itas</i> , Opr. <i>stas</i>
OCS	<i>se</i> “here; <i>ecce</i> ”	<i>sī</i> “this one”; <i>se-sī</i> “ <i>ecce</i> ”
Luv.	<i>za-</i> “this”	<i>zīla</i> “in the future” < <i>*k̂i le</i>
Hitt.	<i>ka-</i> “this”	<i>kī</i> “this”, <i>ki-nun</i> “now”, <i>kiššan</i> “so”

⁸ This was not understood by Hardarsson 1993, 149f.

⁹ Brugmann duly compared *cedo* and *dúok* as regards the imperative (*Grdr.*² II.3 (1916) 565), but kept the particles entirely separate: on Lat. *cedo* and Lith. *šis* see *Grdr.*² II.2 (1911) 322; on his treatment of Lith. *-ki* see below fn. 15.

¹⁰ On modal κ̂ε see fn. 13; on the κ̂α-aorist see Dunkel 2004a.

¹¹ On **h₂u* “to, toward”, as also in Hitt. *eḫu* “come!” and *peḫute-* “take away”, see § 2.1; the allegro-apocope of *-ki* as in *zinnuk* “finally” (to *zinnai* “finishes”); cf. *ūt* “come!” < **h₁i-d^hi*. – Usually *hūdāk* is derived from a noun *hūda-* “haste”, but this is morphologically unparalleled. Instead, nominal *hūda-* may have been hypostasised from *hūdāk* “quickly”. Comparable is Hitt. *dāla* “stop! enough!” < **déh₃-Ø le* “**Give there / then!**” with its verbal hypostasis (Präsens departiculativum, see Dunkel 2007) *dala-* “leave alone, leave in peace”.

¹² Cf. the Armenian definite article *-s*. – Near-deictic **k̂e/i* and the derived stem **k̂o/i-* are as such absent from Aryan.

Though crucial for his argument, the irregularity of a development $*\hat{k}i >$ Lith. $-ki$ was not mentioned by Bammesberger. For this reason Hardarsson 1993, 149f. rejected Bammesberger's equation; Hamp 1994 used the same argument against Shields. Calling this an "incomplete satemisation", as has been done in similar cases (Stang 1966, 91ff.), would have been a mere *obscurum per obscurius*.

Stang 1966, 427 saw in Lith. $-ki-$ and in dialectal and Old Prussian $-ke-$ variants of the well-known Lith. emphatic particle $-ka$, citing in support East Lith. imperatives like *jim-ka* "take!". East Lith. $-ka$ is historically one with Slavic hortatory *ka*, *ko* which lends a familiar tone and a sense of urgency to an utterance, oft an imperative. And Proto-Balto-Slavic $*ko$ and Goth. *ga-* together continue an IE perfectivising particle 2. $*ko$ with a plain velar. An extension 2. $*kom$ underlies Hitt. $-kan$, Proto-Aryan $*kám$ "for the sake of" (+ Dative), and Gr. $\kappa\epsilon\nu$ ¹³ and takes part in the IE particle sequence $*nú$ 2. *kom* "just now" (Hitt. *nu=kan*, Ved. *nú kam*, and Gr. *νύ κεν*). The final nasal of perfectivising 2. $*kom$ is not facultative, but a well-known adverbial ending (Dunkel 1997); 2. $*kom$ is a derivative, 2. $*ko$ the simplex. The original meaning was something like "fully, altogether".¹⁴

IE 2. $*ko$ "altogether, fully", then, is indeed a plausible source for the suffix of East Lith. *jim-ka*; but Lith. $-ki$ cannot be derived therefrom, and neither an *e*-grade nor an *i*-suppletion of either $*ko$ is otherwise attested.¹⁵

¹³ Gr. $\kappa\epsilon\nu$ served originally to underline the generalising value of the subjunctive in subordinate clauses; its vocalism is due to contamination with $\kappa\epsilon < *\hat{k}e$, which originally served to distinguish the potential from the cupitive optative; see Dunkel 1990.

¹⁴ Perfectivising 2. $*ko$, *ko-m* "altogether, fully, insgesamt" arose by fading from its better-known homonym 1. $*kóm$ "with" (Gr. $\kappa\omicron\iota\nu\acute{o}\varsigma$, Ital. $*kom-$, Gaul. *kom-*, OCS *kün-*). The nasalless Ital. $*ko-$, Kelt. $*ko-$, and Goth. *ga-* are invariably said all to have lost their final $*-m$ under variously but never satisfactorily defined conditions. But here as well, 1. $*ko$ was the simplex and 1. $*ko-m$ its adverbial derivative, so that no unexpected nasal losses are necessary. Against "facultative" final nasals in the IE proto-language in general see my contribution to the Gedenkschrift Emil Forrer: *Sarnikzel*, ed. D. Groddek, S. Rössle, 2004, 285–295.

¹⁵ This fact also vitiates Stang's daring later derivation of $-ki-$ from IE $*ke$, *NTS* 30 (1976), 127–131. All of Stang's conclusions were accepted by E. Hamp, *Baltistica* 14 (1978), 110f.; further bibliography in P. Dini, *Balty kalbos* (2000) 330. – K. Brugmann had already derived $-ki-$ from emphatic $-ka$, but by contamination with the optative (*Grdr.*² II.3 (1916) 1001).

I hereby¹⁶ propose that e.g. *dúok(i)* continues a phrase **déh₃-Ø k^ui-d* “give something, give a little”, in which the enclitic neuter indefinite pronoun known from Skr. *cit*, Gr. *τι*, Lat. *-quid* etc. is the object of the imperative. Similarly *iṃk(i)* would have originally meant “take a bit, take something”, and so on. With intransitive verbs indefinite **k^uid* can have served to indicate a limit, as in **h₁éi-Ø k^ui-d* “go to some extent, go a little” > Lith. *eĩk(i)*. By this hypothesis, the phonologic development is regular. The starting-point was with IE full-grade, athematic second singular imperatives (for **h₁éi-Ø* cf. Lat. *ī*, Hitt. *eḫu*, and Gr. *εἰ* (*δ’ ἄγγε*)). Postpositive, indefinite **k^ui-d* also lives on in Lith. *ikì* “until” (§ 2.1).

Syntactically parallel are expressions like Lat. *nescioquid* “something or other” or, though semantically faded, Ṛg-Vedic *vidá cid* “you (pl.) even know” (5.41.13a), *cāskámbha cit* “he even supported” (10.111.5d), etc. Compare also pre-Graeco-Armenian **h₂óju-Ø k^uid* “even for a lifetime” as continued by the negations Gr. *οὐκί* and Arm. *ο՜՛*.¹⁷ The phrase’s zero-grade **h₂jú-Ø k^uid* may live on in Lith. asseverative *jùk* “indeed”.

Stang’s assertion that of the IE interrogative/ indefinite stems only **k^uo-* survived in Baltic (1966, 236) was delusive. After all Slavic has preserved all three stems **k^uo/e/i-* (*kŭto*, *česo*, *čito*) and Baltic can have done the same; archaisms cannot be excluded *a priori*. And in fact, the ablaut-variant **k^ue-* lives on in *kelì* “how many?; some” and in the de-instrumental *kenō* “whose?”. And now we have recognised suppletive **k^ui-* as well.

Thus the eastern dialectal imperative suffix *-ka-* from IE perfectivising 2. **ko* is historically unrelated to the standard *-ki-* < IE indefinite **k^uid*. In a textbook instance of particle-syncretism (Dunkel 1990, 2005b) the perfectivised and indefinitised imperatives fell functionally together; in standard Lithuanian *-k(i)-* was generalised, elsewhere *-k(a)-*.

Still unclear is the dialectal Lith. and Old Prussian imperative suffix *-ke-*, which can continue neither **k^uid* nor 2. **ko*. Simply invoking “ablaut”, as was done so often in the past, is no longer possible since it is known that neither **k^uid* nor 2. **ko* had an *e*-grade.

¹⁶ This idea *in nuce* in Dunkel 2004a, 49.

¹⁷ W. Cowgill, *Language* 36 (1960) 347–350 = *Collected writings* 99–101. On *οὐκί* > *οὐκ* see fn. 11.

2. *ikì, iř, ìt, id* and the successive semantic differentiations of IE **h₂ó* “beside; toward”.

2.1. *ikì, ìk* “until, up to” (+ Gen.).

Fraenkel and Stang take *ikì* “until, up to” as a unusual reduction of *jiék* “until, up to; as long as, during”, seeing the same “proclitic shortening” in *tík* “only; just” beside *tíek* “so much/ many”.¹⁸ Lith. *jiéki* would continue a locative of the IE relative stem plus an element *-ki*. A somewhat implausible semantic change from “in which” to “up to” must also be assumed.

Phonologically, *-ki* could continue either an instrumental adverb **k^ui-h₁* or the inanimate **k^ui-d* which we recognise from *dúok(i)* as the neuter singular of the IE interrogative/ indefinite pronominal stem.

Rather than having been reduced in some odd (but early, to judge by Old Prussian *i(c)kai* “if, whether”) way, the first syllable of *ikì* could directly continue an *i*-suppletive allomorph of the IE local adverb **h₂o* “beside, by; to, toward”, as found in IE compounds such as **h₂o-h₁k^u-* “fast”, **h₂o-h₂uⁱ-o-* “egg”, **h₂o-sd-o-* “branch”, and in IE verb-phrases such as **h₂o* $\sqrt{h_1e\dot{i}}$ - “come to” (Hitt. *e₂hu* (Pal. *iu*) “come!”, Gr. $\omicron\dot{\iota}$ - $\sigma\omega$ “will bring”, $\omicron\dot{\iota}$ - $\chi\omicron\mu\alpha\iota$ “go, come”, Lat. *oi-tor* “use” (+ Abl.) < “come with”). In the historical dialects, IE **h₂o* lives on in Hittite *ḫa-šduēr* “brushwood” and *ḫa-tk-* “close”, in Gr. \omicron - $\kappa\acute{\epsilon}\lambda\lambda\omega$ “push toward”, \omicron - $\lambda\beta$ - $\omicron\varsigma$ “happiness” < **“profit, increase, Zunahme”*, \omicron - $\sigma\chi$ - η “branch” < **“holding to (the tree-trunk)”* et al. The IE adverbial derivative **h₂ó-b^{hi}* is continued by Ved. *abhí* “toward, against” and Latin *ob* “against”, the *āmreṭita* **h₂ó-h₂o* by Vedic \acute{a} / $\acute{a}a$ / “toward” and Lat. *oppido* “utterly” < **ó pedō* “to the ground”. Proto-Baltic **ažō* (OPr. *assa* “from”, Lith. *ažuō-*, *ažù, až* “behind, beyond”) might continue **h₂ó ḡ^ho-h₁*.¹⁹

Beside the **h₂o* reconstructable on the basis of such material existed a *u*-suppletive variant **h₂u* “beside, by; to, toward”, as in e.g. Hitt. *pe-ḫu-te-* “bring!”, *e-ḫu* “come!” and *ḫū-dāk* “quickly” (fn. 11) and in Proto-Aryan **ubha-* “both” < **h₂u bh^o-* beside Proto-Balto-Slavic **obo-* < **h₂o bh^o-*. The suppletion **h₂o/u* is comparable with e.g. **pró/u* “forward; in front”, **ápo/u* “back; away”, and interrogative/ indefinite **k^uó/u-*.

A third IE suppletive allomorph **h₂i*, formally paralleled by e.g. **pri* “in front”, **opi* “back; away”, and interrogative/indefinite **k^ui-* beside the *o-* and *u-*stems noted above, occurred e.g. in the IE particle sequence **p^{rh}ḡi*

¹⁸ Fraenkel 1929, 234f.; Fraenkel 1962–1965, 183; Stang 1966, 237.

¹⁹ If not **ád ḡ^ho-h₁*; the second element alone in OCS *za*.

“before, in front of” (air. *air-*, *ar*; got. *faúr* etc.; cf. **p̥rh₂o* in Gr. Myc. *paro*, Att. *παρά*) and in the IE secondary root **h₂eisd-* “revere” (Ved. *īd-*, Gr. *αἶδομαι*, Goth. *aistan*), which arose as a univerbation of the phrase **h₂i s(e)d-* “sit by” (cf. IE **h₂o-sd-o-* “branch”).

It is the last allomorph which we recognise in Lith. *iki* < 1. **h₂i kʷid* “up to what?”. Similar univerbations are seen in French *pourquoi*, Italian *perché* “why?” and East Thessalian Greek *μεσποδι* “until”, *διεκι* “because; that” (Koiné *διότι*), *ποκι* “that” (Hettrich 1988, 770). Syntactically a partitive genitive such as **h₂i kʷid nekʷts* “Up to what (part) of the night?” seems to have become objective: “until the night”.

In short: The derivation of *iki* “until” from 1. **h₂i kʷid* “up to what?” instead of from **h₂i-í*²⁰ *kʷid* “in which” eliminates the need for both “proclitic shortening” and for semantic change. On Old Prussian *i(c)kai* “if, whether” < 3. **h₂i kʷid* see fn. 30.

2.2. *iř* “and; even”.

The *communis opinio* equates Lith. *iř*, Latv. *ir* and OPr. *ir* with early Gr. *ἄρ*, *ῥα* on the basis of an IE preform **ṛ* “fittingly” from the root **ar-* “join, fit”.²¹ The Lith. dialectal variant *ař* is said to reflect the full grade of this endingless root-adverb.

But Gr. *ἄρ* and *ῥα* are both reductions of *ἄρα*, which in Homer serves to mark well-known information as such and can be rendered as “as is to be expected, as is well known”. It is no conjunction, but an adverb of manner; along with Ved. *āram* “fitting, acceptable”²² and Hitt. *āra* “lawful, acceptable”, Gr. *ἄρα* continues an IE root-adverb **h₁ár-a* “fittingly” which was already specialised in a moral sense.²³ From the same pre-form comes Lith.

²⁰ The presence of the laryngeal in the relative stem according to J. Schindler’s unpublished hypothesis on the double treatment of IE **ǵ-* in Greek, first presented at the 5th East Coast Indo-European Conference in Princeton, N.J. in June 1986; the identification of the laryngeal is due to the etymology from the particle 4. **h₂i* (§ 2.3).

²¹ E.g. Fraenkel 1962–1965, 15; Pokorny 62; Frisk I 127; H. Hoenigswald, *Language* 29 (1953), 288–292; unclear Stang 1966, 114.

²² With a hypercharacterising *-m* as in the consonant-stem accusative, type *páda+m*.

²³ See my contribution to the Festschrift Frederik Kortlandt: *Evidence and counter-evidence*, ed. A. Lubotsky et al. 2008, 138–141. As to the form of the root, Anatolian speaks against **h₂er-* while Greek *ἐρι-* beside *ἀρι-* “very, well-” supports **h₁ar-*. – Lith. *iř* could in principle be derived from a Lindeman-variant **h₁ṛr-a* of the zero-grade, but this is otherwise unattested.

interrogative *aĩ*, homonymic with but unrelated to the dialectal conjunction *aĩ*, whose original usage was rebuking: “Is it (really) fitting, that ...?”

E. Hamp iconoclastically took *iĩ* as a locative **r*-adverb from the near-deictic/ anaphoric stem **i-* (in *Historical Syntax*, ed. J. Fisiak (1984), 173–176). This will not account for the synonymic dialectal *aĩ*, and a semantic shift from “in the aforementioned place, here” to “and” is by no means trivial. But the identification of adverbial **-r*, as in Lith. *kuĩ* “where?”, *dābar* “still” (OPr. *dabber*), *dabarĩ* “now”, *tenuĩ* “there, thither” (de-instrumental) etc. seems plausible and inspires us to look for a more apt derivational base for Lith. *iĩ*.

I see this in 2.**h₂i*, a well-attested suppletive variant of the IE sentence-copulative conjunction 2.**h₂o* “thereto, and; also”, itself probably differentiated from local 1.**h₂o* “by; to” by semantic weakening, the development from local adverb to conjunction being almost banal.²⁴ Three suppletive allomorphs can be reconstructed:

2.* <i>h₂o</i>	2.* <i>h₂u</i>	2.* <i>h₂i</i>
Hitt. <i>-a</i> (gem.), <i>-aku, nūwa</i>	<i>addu</i> < <i>*át h₂u</i>	
Luv. <i>-ḥa</i>	Ved. <i>u, utá, u ca, nú</i>	Av. <i>naēdā/-da</i>
Ved. <i>átha</i> < <i>*át h₂o</i>	<i>ū</i> < <i>*h₂ú h₂u</i> ²⁵	OCS <i>i</i> < <i>*h₂í h₂i</i> ²⁵
Gr.	<i>αῖ, αῖτε,]vũv αῖ</i>	<i>ιδέ; ναί</i> < <i>*neh₁ h₂i</i>
Lat. <i>at</i> < <i>*át h₂o</i>	<i>aut</i> , Goth. <i>-u, -uh, auk</i>	OU <i>*inom</i> < <i>*h₂ina om</i>

Attested in three or more IE dialects are sequences of 2.**-h₂o* and 2.**-h₂u* with the particles **át* “but”, 1. **nú* “now” and 1. **-k^he* “and”:

	with 2.* <i>h₂o</i>	with 2.* <i>h₂u</i>
<i>*át</i>	Ved. <i>átha</i> , Lat. <i>at</i>	Hitt. <i>addu</i>
1.* <i>nú</i>	Hitt. <i>nūwa</i>	Ved. <i>nú</i> , Gr. <i>]vũv αῖ</i>
1.* <i>-k^he</i>	Hitt. <i>-aku</i>	Ved. <i>u ca</i> , Goth. <i>-uh, ?Phryg. v κε</i>

Lith. *iĩ* (with Old Prussian *ir*) and dialectal *aĩ* in the sense “and”, then, would by this hypothesis continue 2.**h₂i-r* and 2.**h₂o-r*, these being adverbial *r*-derivatives of the IE conjunction 2.**h₂o/i* “thereto, and; also”. The comparison with Slavic *i* “and”, Gr. *ιδέ* “and” (Homer, Cypriot inscriptions),

²⁴ IE 2.**de* “thereto, and” (as in Av., Gr., OIr.) had already developed from **dó/de* “to” in the protolanguage and IE **íó* “and” from “hereto”; in the dialects cf. Lat. *et* “and” < **é-ti* “beyond” and Arm. *ew* “and” < **épi* “upon”.

²⁵ Formally parallel are local **h₂o h₂o* in Ved. *á, áa* “toward” (§ 2.1) and 4.**h₂i h₂i* in the Goth. relative particle *-ei* (§ 2.3).

Sabellian **inom* and OAv. *naēdā*, Yav. *naēḏa* “and not, nor” provides a solid incentive for deriving Lith. *iŗ* from conjunctive 2.**h₂ji*.

A trace of suppletive 2.**h₂ju* may be suspected in the Lith. interrogative particle *baũ* < 2.**b^hó h₂ju*, cf. OCS *ubo* “now, thus, but” < **h₂éu b^ho*, with “inversion” by principle e.

2.3. *it* “like, as”; “very”.

The final dental of Lith. *it* necessarily implies the loss of a preceding short vowel.²⁶ Candidates for the one-time end-syllable include the IE adverbial endings **-th₂* (as in Ved. *íti* and Lat. *ita* or IE **mé-th₂* “with”²⁷), **-ti* (as in IE **é-ti*, **h₁ár-ti*, **h₂u-ti*, **k_{m̃}-ti*, **pró-ti*, **tó-ti*), and **-te* (as in IE **h₂u-té*, **-po-te*).

As to the first element, Fraenkel 1962–1965, 189 and Stang 1966, 415 equate Lith. *it* with Ved. *íti* and Lat. *ita* without mentioning the semantic difficulty: both the latter mean “so, thus”, but Lith. *it* is relational. Functionally, Lith. *it* corresponds to Lat. *ut* “like; how”. The same problem arises with Ved. *iva* “like, as”, whose second element recurs in Lith. *nèva* “just like, just as” (§ 3); its first element has also been assigned to deictic/ anaphoric **i-* on the grounds of mere assonance, although this involves the same functional incompatibility as did Lith. *it*.²⁸

An important further comparandum is the Greek adverb *ίνα*, whose primary meaning is relational “where” in Greek poetry from Homer on. The functional shift to a final conjunction is paralleled by those of e.g. Gr. *ώς*, Ved. *yáthā*, Lat. *ut*, Goth. *ei*. On the adverbial ending **-na* see fn. 41. Since the Lithuanian relative stem *jì-* is often said, like Slav. *jĩ-*, to represent a syncretism of relational **h₂ió-* with near-deictic/ anaphoric **i-*, a derivation of Lith. *it* from an IE **h₂ió-th₂* (cf. Ved. *yáthā*) would be within the realm of possibility. But the first syllables of Ved. *iva* and Gr. *ίνα* definitively exclude relational **h₂ió-*;²⁹ *prima facie* they speak for a relational element **i-*.

²⁶ For this reason, the emphatic homonym *it* “very, *y^hpač*” (Forssman 2003, 95) cannot directly continue IE emphatic **id*, despite their functional identity; rather, *it* “very” is reduced from relational *it* “how”.

²⁷ On inclusive **mé* see Dunkel 2004b; on Gr. *μετά* and *πεδά* see Dunkel 2005b.

²⁸ Mayrhofer's skepsis (1992, 197–198) is fully justified.

²⁹ Even where a syncope and samprasāraṇa of **-i_o-* to *-i-* occurs (Italic, Luvian), it never does so in first- or monosyllables.

The shape of the IE relative stem $*h_2i\acute{o}$ - encourages rewriting this as a relational particle 4. $*h_2i$ ³⁰, and seeing $*h_2i\acute{o}$ - as a thematisation thereof; practically all other IE “gender-bearing” (non-personal) pronominal stems can be derived from independently reconstructable particles as well, either by thematisation or by direct inflection (hypostasis). The IE relative particle 4. $*h_2i$ was the derivational base of Lith. *it*, Vedic *iva* and Greek *ἴνα* from 4. $*h_2i-tV$, 4. $*h_2i\acute{u}a$, and 4. $*h_2i-na$ respectively.³¹ The Gothic relative particle *-ei* would continue an *āmređita* 4. $*h_2i-h_2i$ (fn. 25) and another trace of this relational particle might survive in Hitt. *iwar* “like, as” (fn. 38). Remarkably, in this function neither suppletive 4. $*h_2o$ nor 4. $*h_2u$ is attested.

2.4. *id, idañt* “in order to”.

Fraenkel 1962–1965, 182 sees today’s final conjunction *idañt* as a univerbation of the Old Lith. *id* (as in Petkevičius’ *Duok, id mes gerai gyven-tumbim*) with *añt(a)* “on, upon; onto; for the sake of” (Fraenkel 1929, 53ff.) from IE $*h_2ént-a$ “faceward”.³² Simple *id* he derives from near-deictic/ anaphoric $*i-$, comparing Ved. *idá(nīm)*, YAv. *iða* “now”³³ and the Lith. dialectal variant *adunt* from anaphoric $*e/o-$. Stang 1966, 234, 286, 415 however sees in *idañ-t(V)* a pronominal adverb in $*-ān$ (like Lith. *kadà, tadà*, see § 5) which has been extended by adverbial $*-te$ or $*-ti$. But just as in § 2.3, the near-deictic/ anaphoric stem $*i-$ cannot account for the subordinating function.

The intact dental of Lith. *id* indicates the loss of a short final vowel; here the IE locative adverbial ending $*-d^he/i$, though otherwise rare in Baltic,³⁴ presents itself as a source. The IE relative particle 4. $*h_2i$ will account for the stem and the subordinating function. The locative relative adverb 4. $*h_2i-d^he/i$

³⁰ The diacritic 4 is due to the existence of 3. $*h_2o/u/i$ “if”, as in the following, which all mean “if, whether”: Cun. Luv. *āhha* < $*én$ 3. $*h_2o$, NGr. *ai* < $*é$ 3. $*h_2i$, OCS *li* < $*lí$ 3. $*h_2i$, Osk. *svaí* < $*sua$ 3. $*h_2i$ “as if” (§ 3), Goth. *jaba-i, ja-u* < $*j\acute{o}$ 2. b^he 3. $*h_2i$, and Old Prussian *i(c)kai* (locativised from 3. $*h_2i$ k^u *id* “if to some extent”). – The development of 3. $*h_2o/u/i$ “if” from 2. $*h_2o/u/i$ “and” parallels that of IE 2. $-(s)k^ue$ “if” from $-(s)k^ue$ “and” (Dunkel 2008); cf. also Goth. *ip* “and; but; if” and early Modern English *an* “if”.

³¹ *ἴνα*’s asper has always been understood as analogic to that of *ὄς ἢ ὄ ὄς*.

³² As also in Hitt. *hanta* “opposite”; for the ending cf. IE $*h_1ár-a$ “(morally) fittingly” (§ 2.2).

³³ These are adverbial neuters; the local adverbs were Ved. *ihá*, OAv. *idā*, and YAv. *iða* “here”.

³⁴ Lith. *érdėti* “to fall apart, dissolve” might continue an $*er-dhe/i$, cf. Ved. *árdha-*, *ardhá-* “half”, *fdhak* “separately”, and OCS *rěďukŭ* “rare”.

“where” survived in Proto-Balto-Slavic as **ide*, cf. OCS *ĵi-*, *i-de* “where; because”, and in Celtic as a relative particle: Middle Welsh *yd*, Cornish *yth*, and Breton *ez*.³⁵ Some IE adverbial endings were in fact added to both relational particle and stem and in part to anaphoric / deictic **i-* as well:

	rel. particle 4. <i>*h₂i</i>	rel. stem <i>*h₂i-ó-</i>	anaphor. stem <i>*i-</i>
<i>*-th₂</i>	Lith. <i>ìt</i> “like, as” (§ 2.3)	Ar. <i>*yáthā</i> “how; as”	Ved. <i>ítí</i> , Lat. <i>ita</i> “so”
<i>*-na</i>	Gr. <i>ἵνα</i> “where; in order to”	Ar. <i>*yána</i> (Ved. <i>yéna</i> after <i>yébbhis</i>)	---

We can now extend this structure:

<i>*-d^he</i>	Lith. <i>id</i> “in order to”	OP <i>ya-dā</i> “where”	Ved. <i>ihá</i> “here”
	OCS <i>ĵi-</i> , <i>i-de</i> “where”	Gr. <i>ὄ-θι</i> , <i>ὄ-θεν</i>	Gr. <i>ἰθαί-γενής</i>
	MWelsh <i>yd</i> rel. pcl.	“where, whence”	“born here”

To summarise the last two sections: Lith. *ìt* “like, as” and *id* “in order to” are relational in function and are thus despite the *universalis opinio* unrelated to Lat. *ita* “thus”, Ved. *ítí* “thus” and to Ved. *idá(nīm)*, YAv. *ida* “now” respectively, which continue near-deictic/ anaphoric **i-*. Instead, Lith. *ìt* and *id* are derived, as are Ved. *iva* “like, as”, Gr. *ἵνα* “where; in order to”, and the Middle Welsh relative particle *yd*, from an IE relational particle 4. **h₂i*.

3. *nèva* “like”, *vōs* “barely”.

Fraenkel’s identification of the first syllable of Lith. *nèva* “just like, just as, as if”³⁶ with the Lith. negation *nè-* and of its second element with that of Vedic *iva* and Lat. *ceu*, both “like”, is correct as far as it goes. It should be added that the comparison of Lith. *nèva* with YAv. *na-uua* “no way, absolutely not” implies the existence of a proto-sequence **né u^hǵ* and that the semantic change of the first syllable from “not” to “like” is paralleled not only by Lith. *néi* (metatonic from *nēi* “not at all”) and Old Russian *ne*, but already by Ved. *ná*.³⁷ The element *-va* will repay further scrutiny.

The comparison of the second syllable of *nèva* with Gothic *swa* “so” and R̥gvedic /va/ “like, as” (antimetrically written *iva* in all its ca. 35 occurrences

³⁵ P. Schrijver, *Studies in the history of Celtic pronouns and particles* (1997), 162–172 derives these from **ed-ed*.

³⁶ D. Petit argues for a meaning “supposedly” (Fachtagung Salzburg 2008, ed. T. Krisch *et al.*, to appear). We differ on the identity of the second element.

³⁷ See B. Vine, IJ 20 (1978) 171–193; G. Pinault, BSL 80 (1985) 103–144, Bulletin d’études indiennes 13/4 (1995/6) 307–367 and 15 (1997) 213–246.

es) speaks for a short, clitic IE modal adverb $*(s)\mu\check{V}$ “thus; as”. This particle could be recognised as the first element in unverbated sequences such as:

Goth. <i>swe</i> “as”	< $*s\mu\check{V}\acute{e}\text{-}h_1$ “just as” (cf. Goth. <i>swa-swe</i> “so as”)
Proto-Ar. $*\mu\acute{a}i$ “indeed”	< $*\mu\check{V}2.h_2i$ “and so” (on 2. $*h_2i$ see § 2.2)
Osk. <i>svaí</i>	< $*s\mu\check{V}3.h_2i$ “as if” (on 3. $*h_2i$ see fn. 30).

And as the second element in³⁸:

YAv. <i>na-uua</i> “no way, absolutely not”, Lith. <i>nėva</i> “just like”	< $*n\acute{e}\mu\check{V}$
Ved. <i>iva</i> , Hitt. <i>iwar</i> “like, as”	< 4. $*h_2i\mu\check{V}$ “like which” ³⁹
Lat. <i>ceu</i>	< $*\acute{k}\acute{e}\text{-}i\mu\check{V}$ “like here”
Proto-Ar. $*a_i\text{-}\mu\acute{a}$ “so, thus; exactly, just”	< $*e\text{-}i\mu\check{V}$ “like here”.

As to the vowel of $*(s)\mu\check{V}$, certain is only that it was not high. C. Watkins saw disjunctive 2. $*\text{-}\mu\acute{e}$ “or” in the final syllable of Ved. *iva* and of his pre-Latin $*\acute{k}\acute{e}i\mu\acute{e}$ (> *ceu*);⁴⁰ but as a parallel for the proposed change from “or” to “like” in comparisons, Watkins’ adduction of “or” to “than” after comparatives is not apt. Furthermore final $*\text{-}e$ is excluded by Lith. *-va* and Goth. *swa*. And finally, we have just established that relative Ved. *iva* continues 4. $*h_2i\mu\acute{a}$ (§ 2.3); but a sequence $*\acute{k}\acute{e}h_2i\mu\acute{a}$ “like this” would have given Lat. “*caeve*”.⁴¹ In contrast, a locative sequence $*\acute{k}\acute{e}\text{-}i\mu\check{V}$ “like here” has no such problem.

Taking also into account the long, orthotone allomorph $*(s)\mu\acute{o}$ continued by West Germanic *sō* “so”, Gr. $\sigma\acute{\omega}+\varsigma$ “like”, and the Umbr. *āmredita su-ru+r* “likewise”,⁴² Dunkel (1982/3) proposed an underlying ablaut $*s\mu\acute{o}/e$, as also seen in $*d\acute{o}/e$, $*g^h\acute{o}/e$, $*p\acute{o}/e$, $*\acute{o}/em$ and the like. But again, $*\text{-}\mu\acute{e}$ is excluded by Lith. *-va* and Goth. *swa*. An allomorphy $*(s)\mu\acute{o}/\acute{o}$ could be seen as due to stress or to the adverbial ending $*\text{-}h_1$. But since laryngeals colored only IE $*e$, a pre-form $*s\mu\acute{o}3.h_2i$ will not give Osc. *svaí* “if”.

³⁸ Though the Hittite quotative particle *-wa(r)* is usually derived from the root of Lith. *vařdas*, Lat. *verbum*, Gr. $\acute{\rho}\acute{\eta}\tau\omega\zeta$ etc., B. Joseph has proposed an original meaning “like” (cf. Ved. *iva* and adverbial $*\text{-}r$), as in current English *he’s like X = he says X*, KZ 95 (1981) 93–98 and 96 (1982/3) 56ff.; it could be seen as an adverbial derivative in $*\text{-}r$.

³⁹ On 4. $*h_2i$ see § 2.3–4. For $*h_2i\text{-}$ > Hitt. *i-* see G. Rikov, *Linguistique balkanique* 23 (1980) 75–82; sceptical C. Melchert, *Anatol. histor. phonology* (1994) 122, 168f.

⁴⁰ HSCP 77 (1973) 202, 205 = Selected writings II 494, 497. – IE 2. $*\text{-}\mu\acute{e}$ “or” is a differentiation of exclusive 1. $*\text{-}\mu\acute{e}$ “away, off; without” (Dunkel 2004b).

⁴¹ On the fate of final $*\text{-}a$ and of the adverbial ending $*\text{-}na$ in Latin (*pōne, dōnec, nōn* etc.) see Dunkel 2008.

⁴² The latter two with secondary adverbial $*\text{-}s$ and $*\text{-}r$ respectively.

That the short allomorph was in fact *a*-colored is conclusively vouchsafed by Lith. *võs* “barely, scarcely”, which imposes an *a*-vocalism on Proto-Balto-Slavic **vās* (cf. OCS *jedŭ-va* “μόγις, μόλις”).⁴³ This can continue neither **uo és*⁴⁴ nor **ue és*, but only **ua és* “just so”. Osc. **svaí** “if” then unproblematically continues **sua* 3. **hʒi* “as if” and even the odd vocalism of the Festus-gloss from a Roman augural prayer *suad te* “sic te” (with hyperarchaising *-d*) falls unexpectedly into place. Though the ablaut of IE **(s)uó/a* “thus; as” is unparalleled in the other three morpheme-classes, among the IE particles it does recur in IE **mó/a* “but”. Note that a laryngeal interpretation is impossible, as the zero-grade would be **(s)uH*.

4. *aurè* “look!”

Fraenkel 1962–1965, 26 and Stang 1966, 236, 414–415 connect the interjection *aurè* “look!” with the far-deictic stem **Euo-*⁴⁵ known from Slavic *ovŭ* and Old Iranian **ava-* and further cite Gr. *δεῦρο* “hither; back” and the Young Avestan hapax *auuarə* “downward” without clarifying their formal relations. Forssman 2003, 199 identifies the final syllable as a “particle” – the traditional method of disposing of unwanted left-overs after everything recognisable has been identified.

Fraenkel and Stang both cite H. Nyberg 1932 without mentioning that he had reconstructed “un ancien adverb **ure/o*” (247, 260) on the basis of *aurè*, *auuarə* and *δεῦρο*, to which he had added Armen. *owr* “where?” and *owrek*^c “anywhere”⁴⁶ in a pioneering aptotological study which has been ignored by subsequent scholarship.

Neither Fraenkel nor Stang mentions the Proto-Aryan **aurá* “down; hither” reconstructed by K. Hoffmann on the basis of Av. *aurā*, OP *aurā*, and the metathetic Ved. **arvā* preserved in *arvāñc-* “facing hither” and *arvāvát-* “vicinity” (MSS 8 (1956) 9–10 = Aufsätze II, 390f.). C. Bartholomae had seen Av. *aurā* as an instrumental of an adjective **aora-* comparable with Ved. *ávāra-* “lower, further back”, to which should now be added the Umbr.

⁴³ With **ed vās* “barely that” cf. **ed oĭnom* “that alone” > *jedinŭ* “one”.

⁴⁴ On the perfective and emphatic functions of IE **és* “fully, completely” see my contribution in the Festschrift Rasmussen: *Per aspera ad asteriscos*, ed. A. Hyllested et al. 2004, 117–130.

⁴⁵ The first vowel could have been **a* (if from **au* “away, off”) or **e* (if by *vṛddhi* from far-deictic **u*).

⁴⁶ But not Lat. *re-*, which he mentions only while refuting Brugmann (Nyberg 1932, 260).

far-deictic pronoun URE, URA, *orer*;⁴⁷ however IE **áuro-* “distant” is derived not from far-deictic **Euro-* (absent from Indic), but from the IE preverb **á-* “away, off” (> Ved. *áva*, see fn. 48) by means of the antithetic suffix *-*ero-*. Brugmann had reconstructed Proto-Aryan **aurā* for Av. *aorā* and Ved. *ávāra-* (*Grdr.*² II.1, 324) but did not connect Ved. *arvāñc-* (*Grdr.*² II.2, 921). Hoffmann derived **aurá* from **aurá* “downward” within Proto-Aryan, but added no extra-Aryan comparanda; nor does Mayrhofer 1992, 122 s.v. *arvāñc-* and 132 s.v. *ávāra-*. Klingenschmitt 2004 relates **aurá* to an IE adverb **ure* “back(ward)” which he finds in Latin, Slavic, Albanian and Tocharian without mentioning Lith. *aurė*, Arm. *urek*^c, or Nyberg’s study, and cites Gr. δεῦρο only as a semantic parallel.

This lack of controversy reflects not consensus but rather utter disinterest in aptotological issues; as a result, the precise formal analysis of Lith. *aurė* and of practically all the comparanda still remains unclear. Let us abandon the connection with far-deictic **Euro-* and start afresh.

Since the final vowel of Lith. *aurė* was shortened from the long vowel continued by Proto-Aryan **aurá*, its formal analysis must begin from **auré*. This could have meant either “hither” or “look!”; a local meaning can easily have led to an imperative or the reverse in the proper environment.

Two segmentations are possible using otherwise known IE particles. If the final syllable continues emphatic **éh₁* “so; indeed” (Dunkel 2007, 55ff.), the initial **aur* could formally be either a zero-grade of an IE **aur* “downward” or an adverb from the root **au-* “perceive” (IEW 78).⁴⁸ However the usual IE expression for “perceptible” was **ǎu-ís* and neither interpretation leads straightforwardly to either “hither” or “look!”.

If on the other hand segmented as **auré*, the second element could continue the IE local adverb **re* “back; away”,⁴⁹ as in Latin *re-* “back(ward)” and Arm.

⁴⁷ *Altiran. Wb.* (1904) 43. To judge by Untermann, *Wörterbuch des Oskisch-Umbrischen* (2000) 804, Umbrian *oro-* seems never have been compared with Ved. *ávāra-*; this would practically compel an IE **áuro-* “distant” and render Nyberg’s Proto-Aryan derivation from **avár* “downward” (1932, 245f., 249) unlikely.

⁴⁸ Ved. *uv-é* “I see” (mediopassive) and Hitt. *uḫhi* are primaricised continuants of an IE perfect *(*o*)*u-h₂o+i*. Lith. dialectal *avà*, *avė* “look!” and Luvian *ǎwa* “look!” might continue this root as well, though Luvian *ǎwa* could also represent **au* remade after *anta*, *āpa*, *šarra* etc., compare Proto-Aryan **áva* after **āpa*, **ūpa*, **āa* (*á*), **sadhá* etc.

⁴⁹ On IE **re* see my contribution to the Festschrift Gunilla Gren-Eklund, *Orientalia Suecana* 51–52 (2002–3) 95–102 and Klingenschmitt 2004. Unbeknownst to us both, the adverb had already been reconstructed by G. Schmidt, *Studien zum german. Adverb* (Diss. Berlin 1962) 75–78 (without knowing Nyberg 1932).

owr “where?” < **ku re*, indef. *owrek* “somewhere” < **ku re 3.k^ue*, to which Klingenschmitt 2004 adds Proto-Slav. **rakŭ* “crab” < **ré-h 3k^u-o-* “looking backward”. Since a long-grade of this particle is otherwise unknown, **re* seems here to have been extended by the instrumental adverbial ending *-*h₁*.

If the first element of **au ré-h₁* were the IE preverb **áu* “away, off”, the meaning could have been either complementary (“away and back”) or synonymic (“off and away”).⁵⁰ But local adverbs forming a “complementary unity” were normally conjoined with double 1. *-*k^ue*, as in Ved. *á ca párá ca*, Gr. περί τ’ ἀμφί τε, Lat. **reque proque* (Dunkel, *IF* 84 (1979), 184–195). And once again, neither meaning would lead to either “hither” or “look!”.

Enlightening, in comparison, is to see in the first element of **au ré-h₁* the athematic imperative **au-Ø*⁵¹ “perceive!” as preserved in Hitt. *au* “look!” to *u-h₁hi* “I see” (see fn. 48). The phrase **au-Ø ré-h₁* would have meant “look back!”; Lithuanian lost “back”, Aryan lost “look!” and shifted from “back” to “hither”.

Inscriptional Attic Greek δευρε “hither”⁵² is a precious archaism, a Greek expansion by means of allative δε (fn. 24) of the particle sequence **u re* “back there”. Elsewhere in Greek, δεῦρε was “preverbalised” to δεῦρο, cf. already Mycenaean *dewero-*, and “pluralised” to δεῦτε (on praesentia depariculativa see Dunkel 2007). Though taken as a simplex by Nyberg and Klingenschmitt, the parallel phrases **ku re* “back where?” (Arm. *owr(ek)* and **áu-Ø re-h₁* “look back!” (Proto-Aryan **aurá*, Lith. *aurè*) show that **u re* was an IE particle-sequence as well.

5. *tataĩ* “just that”, *ěš* “I”: Final devoicing?

In Lithuanian and the other Baltic languages no word-final IE stops have survived as such.⁵³ All of today’s final stops are due to relatively recent apocopes (as in *dúoki* > *dúok*, § 1); these are not limited to short vowels, cf. *taĩpo* > *taĩp*. Particularly common in final position were IE *-*t* and *-*d* serving as verbal, nominal, and pronominal endings;⁵⁴ these were lost in all the Baltic

⁵⁰ A semantic amređita like Gr. ἀμφι-περι-, ἐξ-απο-, Lat. *ac-ce-*, *ab-so-*, *dis-so-*, *ex-po-* etc.

⁵¹ For the zero-ending cf. IE **deh₃-Ø* “give!” and **h₁ei-Ø* “go!”, § 1.

⁵² Threatte, *Grammar of Attic inscriptions* II (1996) 409.

⁵³ On the development of IE *-*ǵ*(^h) to Lith. -*š* see the end of this section.

⁵⁴ On the different sound-systems of the four morpheme-classes see my contribution to the *Proceedings of the 12th UCLA IE conference*, ed. M. Huld et al. (*Journal of Indo-European Studies*, Monograph Nr. 40, 2001), 1–14.

languages after short⁵⁵ and long⁵⁶ vowels as well as post-consonantly.⁵⁷ Final dentals arose again due to later apocopes, as in *ìt* “like, as” < 4.**h₂i-th₂*, *id* “in order to” < 4.**h₂i-d^he/i* (§ 2.3-4) and emphatic *-pat* < 2.**po-te* (Dunkel 2005a). Importantly for the aptologist, “die Apokope ist geradezu zu einem Kennzeichen der Adverbia geworden”.⁵⁸ But was the loss of final IE dental stops which is patent in the earliest stages of all Baltic languages a parallel innovation or already Proto-Baltic? Certainly the loss of all final consonants in Proto-Slavic⁵⁹ is, as part of a general “law” of open syllables which has no counterpart in Baltic, irrelevant for the present question.

In Greek traces of final dental stops have survived in opaque univerbations and derivatives such as *ὅτ-τι* “whatever”, *οὐτιδ-ανός* “worthless”, and *ποδ-, ἀλλοδ-απός* “coming from where?, elsewhere” reflecting IE **h₂iód*, **-k^hid*, **k^hód* and **al^hiód* respectively,⁶⁰ in *ἀτ-άγ* “but; and” < IE **át h₁ar-a* and in forms like *πτόλεμος* beside *πόλεμος*.⁶¹

Turning to Lithuanian in search of something similar, we note that adverbs like *kadà* “when?”, *kadángi* “because” and *tadà* “then” reflect a Proto-Baltic temporal **-dán* of unclear origin (Stang 1966, 285f.; Forssman 2003, 92–95). Now in the proto-language pronominal forms seem to have been derived not only from stems, but from already fully inflected pronouns; e.g. the plural stem **toj-* is nothing other than the hypostasised nominative plural. That such procedures continued in the dialects is shown by Ved. *yád-i* “if”⁶² and once more by Gr. *ποδ-, ἀλλοδ-απός*. Thus the Proto-Baltic tem-

⁵⁵ As in the 2. sg. imperative *dúoki* < **déh₃-Ø k^hid* (§ 1); in *bēi* “and” < 2.**b^he id*, cf. YAv. *bōit* “indeed”; in the 3. sg. pres. indic. *-a* < **-at* (for IE **-et* after the plural).

⁵⁶ As in the thematic gen. sg. *-o* < **-ād* from the IE abl. **-oad* and in the 3. sg. pres. indic. *-o-*, *-ē* < **-eh₂t*, **-eh₁t*.

⁵⁷ As in the nom. plur. themat. ppe. *-q*, whether (as usually) from a neuter singular **-ont-Ø* or from a third plural injunctive **-o-nt* (with W. Cowgill, in *Baltic Linguistics*, ed. Magner and Schmalstieg, 1970, 23–37 = *Collected writings* 451–461).

⁵⁸ Stang 1966, 116. Cf. Endzelins, *Comparative phonol. and morphol. of the Baltic langs.*, transl. Schmalstieg and Jēgers, 1971, 54 and Fraenkel’s important article on *Verstümmelung*, *IF* 41, (1923) 393–421.

⁵⁹ On Slavic *niz(ǔ)*, *iz(ǔ)*, *bez*, *vǔz*, *raz*, and *čerez* see Dunkel to appear.

⁶⁰ However Gr. *τίπτε* reflects *τί ποτε*, not IE **k^hid-pe*, see Dunkel 2005a.

⁶¹ *πτόλεμος* was back-formed to univerbations like **φερετ- πόλεμος* which are parallel to the Vedic type *bharád-vāja-*: Dunkel, *Glotta* 70, 1992, 197–225.

⁶² On the differentiation of *yádi* from conditional *yád* in Vedic prose see Hettrich 1988, 225 with fn. 36.

poral adverbs in *-*dán* could continue pronominal nom.-acc. sing. neuters in *-*o-d* which would have been extended by either the adverbial ending-conglomerate *-*ām* (Dunkel 1997) or by the pleonastic emphatic phrase **óh₁ em*.⁶³ This would show not only that in Proto-Baltic final dental stops were still intact, but also that the neuter singular pronominal ending was underlyingly voiced in the IE proto-language.⁶⁴ The loss of final dental stops must then have been a parallel innovation among the individual Baltic languages.

However A. Meillet has argued that Lith. *tataĩ* “just that”, *antaĩ* “voilà”, *štaĩ* “voici” and the like continue pronominal nom.-acc. sing. neuters whose final *-*d* was devoiced in Proto-Baltic and disappeared in pre-Lithuanian (MSL 10 (1898) 135–136) except before emphatic -*aĩ* (as in *tasaĩ* and *jisaĩ* “just he”).⁶⁵ This devoicing he saw not as a sound-law, but as the generalisation of a sandhi-allophone which originally occurred, as in Aryan, before voiceless phonemes and perhaps at sentence-end. Lith. *tataĩ* and *antaĩ* would continue the pre-voiceless allomorphs of the neuters **tód* and **ánod* – though attested only before vowel. Syncope then led from **anataĩ* to *antaĩ*, from **šitaĩ* to *štaĩ* and from *tataĩ* to *taĩ* “that; then, so”. Stang adds the case of *tačiaũ* “nevertheless, however” < **tát jaũ* (1966, 66, 114–115, 232–235, 242).

Meillet’s analysis seems overly complicated for *taĩ* and will not account for *kaĩ* “when? as” at all. An entirely different approach to these two forms had been taken by J. Schmidt, who compared them with the Lat. pronominal neuter plurals *istaec* and *quae*, seeing here a variant of the collective suffix (*Die Pluralbildungen der idg. Neutra* (1889), 227–231). Since then however no function for or explanation of this variant has ever been proposed.⁶⁶ I sug-

⁶³ Emphatic **óh₁* as in Lat. *idō-neus*, Goth. *ita*; emphatic *-*em* as in Lat. *idem*, Ved. *idám*; the pleonastic phrase **óh₁ em* also in Greek emphatic οὖν, Cypriot οἴν; compare lith. -*aĩ* < **óh₁ ih₁* (fn. 65).

⁶⁴ Which is in any case clear from Ved. *ad-ó*, *yád-i*, Lat. *id-ōneus*, Goth. *þat-a*, and OCS *jed-inŭ*, contra Gauthiot, *La fin de mot en i.-e.* (1913) 79–87 and O. Szemerényi, *TPS* 1973 = *Scripta Minora* II, 925–944. Cf. also W. Cowgill in: *Flexion und Wortbildung*, ed. H. Rix (1975), 52 = *Collected writings* 308 (who underestimates the positive evidence for pronominal *-*d*) and M. Leumann, *Lat. Grammatik*² (1977) 229.

⁶⁵ Emphatic -*aĩ* continues a pleonastic emphatic phrase **óh₁ ih₁* (for the latter cf. Greek οὐτος-ί) parallel to **óh₁ em* in fn. 63. – Meillet’s attractive proportion Lith. -*aĩ*: gr. -ί = gr. αῦ: ved. ṽ will not work with today’s pre-forms: **óh₁ ih₁*: *ih₁* ≠ 2. **h₂u*: 2. **h₂ú* (*h₂*)*u*.

⁶⁶ H. Eichner modernised Schmidt’s *-*ā-i* and *-*āi* to *-*eh₂i*(*h₁*?) but said nothing as to its function in *Grammatische Kategorien*, ed. B. Schlerath 1985, 156–160.

gest then that free *taĩ* continues a normal pronominal collective followed by emphatic *ih*₁ in a phrase **té-h*₂-*Ø ih*₁; and similarly for Lith. *kaĩ* “when?; as” and the neuter plurals Lat. *quae* and Osc. *paĩ*.

Yet Meillet’s morphological analysis of Lith. *tataĩ*, *antaĩ* and *šitaĩ* could be defended, if modified: these forms could still continue the IE neuter singulars **tó-d*, **áno-d* and **k̂i-d*; however these would have given not pre-dialectal “*taĩ*” “*anat*”, and “*šit*”, as Meillet urged, but rather “*ta*”, “*ana*”, and “*ši*”. These would then have been unverbated neither with emphatic *-aĩ* nor with the above-mentioned emphatic collective *taĩ*, but with a homonymic locative *taĩ* as preserved in *taĩp* “so, indeed” and *taĩgi* “therefore, thus” from IE **tó-ĩ* “in this (aforementioned) place; there, here”;⁶⁷ **tód toĩ* meant “that there”. However locative *taĩ* can just as well have been added to the pronominal stems derivationally, like an adverbial ending.

Other candidates for a sound-change devoicing final dental stops are insecure. Phonologically, the first element of Lith. *tačiaũ* “but, however” < **tát jaũ*⁶⁸ can continue IE **tó-ti* “so many” as well as **tó-d* “that” (semantically, neither preform is satisfactory). On Lith. *ìt* “like, as” beside *id* “in order to” see § 2.3-4. Lith. *at-* “toward” does not continue **ád* “toward” but is semantically polarised from **áto* “back; away”.

To sum up: a derivation of *tataĩ* from **tód toĩ* or **tó-toĩ* “that there” is preferable to Meillet’s derivation from **tad aĩ* < **tód óh*₁ *ih*₁. As the adverbs in **-dán* show, final voiced dental stops were not phonologically devoiced before they disappeared, a process which occurred post-Proto-Baltically.

Meillet had *en passant* rejected a sound-law devoicing all final stops (not just dentals). Although the development of IE **eĝ(H)* “I” to Proto-Baltic **eš* and of IE **éĝh* “out, outward” to Lith. *iš*, OPr. *is* might suggest a Proto-Baltic devoicing of IE final palatals, and in Lith. *už* “behind; for; than” IE **ĝh* was not originally final, having been apocoped from Proto-Balto-Slavic **uži* “upward” < IE **úd ĝhi* just as was OCS *vŭz*, a Proto-Baltic **iš* is invalidated or at least complicated by Latv. *iz*. To account for the voicelessness of Proto-Baltic **eš* “I” by means of a regular *Auslautsverhärtung* would thus amount to a one-word Lautgesetz.

⁶⁷ The adverbial type *geraĩ* “well”, *labai* “very” continues more probably a neo-locative (type *žemai* “low”), i.e. “in a good (place)” than an emphatic collective. – On the IE locative **-eĩ* and the neo-locative **-oĩ* see my contribution to *Früh-, Mittel-, Spätindogermanisch*, ed. G. Dunkel et al. 1994, 17–36.

⁶⁸ On the emphatic use of *jaũ* “already” see Stang 1966, 114-115; Forssman 2003, 197–198.

6. *pàs* “by, to, at”

To the comparison of Lith. *pàs* (Fraenkel 1929, 81–84; not mentioned in Forssman 2003) with Greek (Arcado-Cypriot) $\pi\omicron\varsigma$ should now be added Phrygian $\pi\omicron\varsigma\text{-}\epsilon\kappa\alpha\nu\epsilon\varsigma$ “has damaged”.⁶⁹ This allows the reconstruction of an IE 2. **pós* on the basis of three IE dialects, whose meaning “to, toward; by, at” is everywhere intact. This 2. **pós* is homonymic with but historically distinct from 1. **pós* “behind, after, late” (as in **pós-d^hi*), which is a back-formation from **pó-sk^ue* “and after”, i.e. ultimately derived from IE **ápo* “back, away” (Dunkel 2000, 21).⁷⁰

LIETUVIŲ KALBOS SMULKMENOS IŠ APTOTOLOGO DIRBTUVIŲ

Santrauka

Ide. dalelyčių tyrimų pažanga (ypač supletyvinės balsių **i*, **o* ir **u* kaitos sistemos pripažinimas) įgalina, netgi verčia reinterpretuoti kai kurias gerai žinomas lietuvių kalbos dalelytes ir morfemas. Imperatyvo priesaga *-ki-* susiejama su ide. nežymimąja enklitine dalelyte **k^uid*, taip pat randama ir *iki* < ide *1. *h₂í k^uid* „iki ko?“. Pastarosios pirmasis komponentas **h₂í* „prie, palei“ jau ide. laikais išsirutuliojo į 2. **h₂í* „prie to; ir; taip pat, irgi“, siejamą su lie. ir (plg. Homero *ídē*, sl. *i* < 2. **h₂í-h₂i*. Tolimesnė diferenciacija į santykinę dalelytę 4. **h₂i* (pvz.: ved. *iva* „kaip“, Homero *íva* „kur“ ir go. sant. dalelytė *-ei* < 4. **h₂í-h₂i*) yra tęsiama lie. *it*, *id*, *idañt*. Lie. *nėva* ir *võs* padeda rekonstruoti ide. *(s)*uó/a* „taip“. Lyginant lie. *aurė* su protoindų-iranėnų **aurá* „žemai; čia“ ir gr. $\delta\epsilon\upsilon\sigma\epsilon$ „čia“ atkuriama imperatyvinė frazė **au-Ø ré-h₁* „atsigręžk, žvalgykis“. Pagaliau mintis apie žodžio galo priebalsių duslėjimą, remiamą tokiomis formomis kaip *tataĩ* ir *ėš* „aš“, laikytina nepagrįsta turint galvoje išlaikytus skardžiuosius priebalsius tokiais atvejais kaip *kadà*.

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⁶⁹ A semantically parallel but earlier compound of the same root may be suspected in IE **k^upen-*, ***tken-* “wound, kill” from *(a)*d ken-* “hit at” (Dunkel 2007).

⁷⁰ Also unrelated is North Greek and Old Iranian **pó-ti*, itself most probably dissimilated from IE **pró-ti* “toward; against, opposite”.

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