Book Reviews / Рецензии

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Alwin Kloekhorst and Tijmen Pronk (eds.).
The Precursors of Proto-Indo-European: The Indo-Anatolian and Indo-Uralic Hypotheses
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The volume consists of fifteen chapters, most of which are based on talks presented at "The Precursors of Proto-Indo-European" workshop held in Leiden on July 9–11, 2015. It covers a wide range of topics that reach beyond the Proto-Indo-European reconstruction including the Indo-Uralic and Indo-Anatolian hypotheses, as well as pre-Proto-Indo-European phonology, morphology, and syntax.

The Indo-Uralic hypothesis and branching of Proto-Indo-European: In the context of the Indo-Uralic hypothesis, **Alwin Kloekhorst** and **Tijmen Pronk** ("Introduction: Reconstructing Proto-Indo-Anatolian and Proto-Indo-Uralic", Chapter 1) revise the Indo-Anatolian (= Indo-Hittite) hypothesis which implies that a significant number of innovations occurred in the proto-language after the split of the Anatolian branch. The authors present a list of 34 isoglosses that set Anatolian apart from the proto-language of the remaining branches. This list constitutes a substantial contribution to the discussion of the Indo-Anatolian hypothesis and should become a subject of close examination going beyond the present review. The controversial nature of some isoglosses can be illustrated by the reconstruction of a Proto-Indo-Anatolian (PIA) aspectual pair *h_1es-* 'to sit' and *h_1e-h_1s-* 'to sit down' that is claimed to have been replaced by the Proto-Indo-European (PIE) pair *h_1e-h_1s-* 'to sit' and *sed-* 'to sit down'. The root *sed-* is analyzed as a post-Anatolian innovation; it is implied that the dynamic PIA stem *h_1e-h_1s-* became stative in post-Anatolian PIE and replaced the older stative *h_1es-*. One might argue, however, that the post-Anatolian PIE verbal system was based on regular opposition of tense-aspect stems (inflectional and/or derivational). Within such system, the shift in the aspectual meaning of *h_1e-h_1s-* and the introduction of a suppletive root *sed-* instead of a morphological derivative of *h_1es-* are unexpected. It would seem more economical to assume that (pre-)PIE had complementary verbs *h_1es-* and *sed-* showing a contrast of lexical aspect parallel to PIE *$\acute{k}ei$-* 'to lie' and *leg^h-* 'to lie (down)'. It has been argued that such pairs were opposed to each other as

describing a non-volitional state vs. a controlled state / entering into a state of a volitional subject correlated with the use of neuter and common gender marking of the subject, respectively (cf. Lehmann 2002: 27). Even though some of the listed post-Anatolian innovations evoke doubts, taken together the presented evidence constitutes a serious challenge for critics of the Indo-Anatolian hypothesis.

Kloekhorst and Pronk point out the importance of establishing time depth in reconstructions and estimate the gap between the split of the Anatolian branch (the mid-4th millennium BCE) and the break-up of the remaining branches within the range of 1000–1200 years (with Tocharian possibly breaking off earlier, 800–1000 years after Anatolian). Given that the same set of phonemes is accepted for reconstructions with and without Anatolian cognates, the stability of the phonological system, required by the proposed chronology, is suspicious. Allophonic variation and conditioned sound changes aside, not a single change in the phonemic inventory is listed among the post-Anatolian innovations. One may ask whether the authors would agree to recognize the phonologization of *a and long vowels as a post-Anatolian phenomenon, marking the transition from the two-vowel PIA system to the ten-vowel PIE system? Whatever be the probative value of the phonological argument, one is left in uncertainty on what is the methodological basis for the proposed dating and why exactly an alternative interval of 800 years or less would be an unlikely estimate. While discussing the time depth of Proto-Indo-Uralic (PIU), the authors do refer to a limited number of etymological correspondences between the basic lexical items as a means to estimate when Proto-Uralic (PU) and PIA diverged (p. 10–11). However, no reference to lexicostatistic methods and results is given in relation to the suggested chronology of the internal PIA branching.

Petri Kallio offers an exciting and tragic story of Daniel Europaeus' life and scholarly work ("Daniel Europaeus and Indo-Uralic", Chapter 5). A predecessor of Vilhelm Thomsen and Holger Pedersen, Eu-

ropaeus was perhaps the first to discuss the Indo-Uralic hypothesis on scientific grounds in a self-published study as early as 1853. Far ahead of his time, Europaeus was deprived of a merited recognition during lifetime and has long been forgotten. Kallio's detailed overview of Europaeus' achievements, in particular, as one of the pioneers of the Nostratic hypothesis is a noticeable contribution to the history of linguistics.

Simona Klemenčič ("Bojan Čop's Indo-Uralic Hypothesis and Its Plausibility", Chapter 6) offers a review of Bojan Čop's rich scholarship on Indo-Uralic. It is a laudable overview of Čop's research on many aspects of the PIU reconstruction that he published in over a dozen of papers and monographs, some of which are difficult to access. A critical discussion of Čop's reconstructions, at times inconsistent with each other, requires a monographic study. Klemenčič's arrangement and presentation of Čop's views on the PIU phonemic inventory, accentuation, root structure, and morphology is an important step forward.

Michaël Peyrot ("Indo-Uralic, Indo-Anatolian, Indo-Tocharian", Chapter 13) discusses the Tocharian evidence for the Indo-Anatolian and Indo-Uralic hypotheses. The author cautiously accepts that Tocharian was the second branch to split off after the Anatolian one. Having revised seven post-Indo-Anatolian innovations, identified by Kloekhorst (2008: 8–10), Peyrot confirms that the Tocharian evidence allows to consider them as post-Indo-Anatolian: Tocharian unambiguously agrees with the post-Anatolian languages on five innovations, has a lacuna for *mer- (PIA 'to disappear' > post-Anat. IE 'to die'), and allows for competing interpretations with respect to PIA nom.sg. $*d^hu\acute{e}g_2tr \rightarrow$ post-Anat. IE $*d^hug_2t\bar{e}r$. This evidence supports the Indo-Anatolian hypothesis but is not in itself an argument in favor of Tocharian being the second branch to spit off. Peyrot then proceeds with the analysis of possible isoglosses shared exclusively by Anatolian and Tocharian. It is pointed out that the match between Hitt. *eku-ᶻⁱ* and Toch. *yok-* from $*h_1eg^{wh}$- 'to drink' is not significant given that the same root is found in Lat. *ēbrius* 'to drunk' and Gk. νήφω 'to be sober', unless one accepts the semantic change 'to drink' > 'to be drunk' as a post-Indo-Tocharian innovation. A detailed critical revision is offered for the alleged link between PA $*h_1eg^{wh}$- and the PU verb for 'to drink' (Fin. *juo-*, etc.). The chapter is concluded with a discussion of the interrogative stem *mV-, reflexes of which are often claimed to be found only in Anatolian and Tocharian branches next to the *kʷV- stem found in these and other branches. Peyrot claims that, firstly, this isogloss is of limited value for proving that Ana-

tolian and Tocharian were the first branches to split off because competing *kʷ-interrogatives could have replaced *m-interrogatives independently in the remaining branches and, secondly, because of possible traces of *m-interrogatives in Celtic (OIr. *má* 'if', etc.). It must be added that the Vedic and Armenian cognates of *m-interrogatives, cited in Dunkel 2014: 518-523 and rejected by Peyrot, might still prove to be relevant. In particular, Arm. *omn* 'someone', *imn* 'whichever' may be derived from PArm. **om-* and **im-* with onset vowels analogical to *okʿ* 'someone' and *ikʿ* 'somewhat' added to a pronominal stem **mV-*. Peyrot accepts the comparison of the two Proto-Indo-Anatolian interrogative stems to the Uralic *m-* and *k-*interrogatives (cf. Hungarian *mi* 'what' and *ki* 'who') as a reliable piece of evidence in favor of the Indo-Uralic hypothesis.

Phonology: Chapters 8 and 9 concern overlapping issues of pre-PIE phonology related to the origin of PIE *mediae*, traditionally reconstructed as voiced stops. **Martin Kümmel** ("Thoughts about Pre-Indo-European Stop Systems", Chapter 9) presented arguments in favor of a particular phonetic reconstruction of the Proto-Indo-Anatolian (= Proto-Indo-Hittite) system of stops and its implications for the PIU phonology. According to Kümmel, the typology of sound changes favors the reconstruction of a system with the opposition of voiceless, voiced and voiced implosive stops rather than a system with voiceless fortis, lenis, and preglottalized stops as suggested by Kloekhorst (2016). While Kloekhorst's reconstruction implies a change from length to voicing contrast as a joint innovation of non-Anatolian languages, Kümmel's reconstruction rather points to an inner-Anatolian innovation. The typological argument builds on the extreme rarity (or non-existence) of evidence for an unconditioned change of voiceless to voiced stops (Kümmel 2007: 47–54). Having critically revised other potential innovations of post-Anatolian IE, the author comes to a conclusion that the PIA stop system need not be different from PIE and could have voiced explosives, voiced implosives and voiceless stops, from which the "classical" system of voiced aspirated, voiced and voiceless stops had evolved in the common ancestor of Greek, Indo-Iranian, and probably some other branches. An assessment of such reconstruction in the perspective of the Indo-Uralic hypothesis is presented in the second part of the chapter. It is concluded with a useful appendix summarizing morphological and lexical correspondences (including new suggestions) between the PIA and PU. Having argued against inner-Anatolian phonological innovations, Kümmel keeps using the term "Proto-Indo-Anatolian" to de-

note the common proto-language, which affects a terminological contrast between "Proto-Indo-Anatolian" and "Proto-Indo-European". A disclaimer on the validity of the evidence of Western Armenian for the change of voiceless to voiced stops (fn. 2, p. 117; also in Kümmel 2007: 47) invites to a detailed discussion of the dialectal Armenian material for which such change has been postulated (cf. Pisowicz 1997; Martirosyan 2018 with literature).

Building upon Čop's (1972) equation between PIE *$\acute{g}$ and PU *η and his earlier observation (Kümmel 2012), Kümmel suggests, albeit very cautiously, that the PIU plosive series might have split into PU voiceless stops and nasals. Apart from a set of lexical correspondences supporting this view, Kümmel evokes typological evidence in favor of a change from implosives to nasals rather than vice versa. This view contrasts with a hypothesis developed in Chapter 8 by **Guus Kroonen** ("The Proto-Indo-European Mediae, Proto-Uralic Nasals from a Glottalic Perspective"). In his earlier publication (Kroonen 2018), Kroonen suggested that PIE preglottalized voiced stops developed from PIU preglottalized or implosive nasals based on a set of PIU lexical correspondences, which partly overlap with those adduced by Kümmel. While Kümmel argues that a change from nasals to any kind of non-nasal stops is cross-linguistically rare, Kroonen mentions a change from preglottalized nasals to implosives in Wambule (the Kiranti language family). In Chapter 8, Kroonen provides additional arguments in support of his hypothesis by showing that it allows to explain the distribution of the PIE suffix *-no- which, according to him, was originally limited to PIE roots ending in *-d- (= *-ʔd-) and in that respect was in complementary distribution with *-to-. He assumes that PIE *-no- developed from *-to- by the following chain of phonetic changes: *-ʔnto- > *-ʔnno- (assimilation) > *-dno- (buccalization). As is often the case with internal reconstructions, the suggested sound changes are not supported by independent evidence and are justified only by their explanatory power for a peculiar distribution of PIE suffixes. Additionally, Kroonen applies his reconstruction to explain Skt. *viṃśatí* 'twenty' next to Av. *vīsaiti*, etc. He derives the former from pre-PIE *ʔnui-ʔnḱmti- > *ʔnui-nḱmti- (dissimilation) > *ʔui-nḱmti- (dissimilation) > PIE *$h_1$uinḱmti-. The comparison of Kümmel's and Kroonen's PIU phonological reconstructions immediately evokes the question of plausibility of the resulting phonological systems. In that respect, explicit reconstructions of complete PIU consonant systems accepted by each of the authors would be helpful. One wonders, for example, whether Kroonen counts PIU *ʔņ (found in the recon-

struction of a word for 'tongue', p. 112) as a different phoneme than PIU *ʔń, and whether he assumes that all PIU nasals were preglottalised?

Morphology: **Mikhail Zhivlov** offers an insightful paper on the PIU origins of the PIE ablaut ("Indo-Uralic and the Origin of Indo-European Ablaut", Chapter 15). Zhivlov suggests six rules that aim to explain the PIE ablaut and accentuation out of PIU word templates with disyllabic roots. The first five rules predict the rise of pre-PIE word forms with one vowel — *o in the descendants of the PIU *i-stems, and *e elsewhere. Exceptionally, the second vowel *e is licensed in front of final *-t > *-s. The sixth rule describes an accent shift to the first syllable with a high tone in a word or to any first syllable of a word with no high tones yielding the PIE accentuation (with no direct connection between ablaut and accent, cf. e.g. *$h_2\acute{r}$ḱtos 'bear' and *septṃ́ 'seven'). The second part of the chapter contains an outline of the development of two types of root nouns and eight types of suffixed nouns starting from PIU with regard to the suggested rules.

Zhivlov emphasizes that the presented analysis is not circular because the PIU word templates were reconstructed on the basis of Proto-Uralic independently of the PIE data. And yet, according to him, a set of "simple phonological rules" allows one to arrive at the PIE ablaut paradigms reconstructed on the basis of internal evidence of the IE languages. Indeed, the structural contrast between PIU acc.sg. *CVCi-m and (gen.)-abl.sg. *CVC-ta (with the loss of *-i- before a suffix containing a vowel as reconstructed based on the Uralic evidence) looks parallel to PIE acc.sg. *CoC-m and gen.sg. *CeC-s of the acrostatic root nouns (as reconstructed based on the Indo-European evidence).

However, the author's claim of non-circularity may be contested. Some of the rules are less "simple" than others and yet they drive the analysis towards given PIE reconstructions. For example, the ablative ending PIU *-ta > *-t is claimed to yield PIE abl. *-s according to a general rule but exceptionally *-d in pronouns with CV-shaped stems (cf. abl. *me-d of 1st sg. pronoun). Similarly, all PIU unstressed vowels are assumed to be reduced at stage "B", except for the position before the final *-t, which does not seem to be a trivial phonological rule and is introduced, it seems, for no other reason than to explain PIE nom.pl. *-es. More importantly, the tones and their effects on accentuation are introduced at stage "F" without any apparent relation to the PIU state of affairs in order to account for the rearrangement of accents in what would otherwise be an expected result of the rules "A" to "E". The suggested rules do not explain the *o-grade in the suffix of amphikinetic nouns (Type 5,

p. 229). In order to account for that, the author assumes an analogical influence of the hysterokinetic type at a stage when the analogical *e changed to *o in unstressed syllables (another additional sound change introduced to reconsolidate the outcome of the assumed pre-PIE rules and PIE reconstructions). No Indo-Uralic correspondences have been presented that would confirm the validity of the suggested correlation between the PIU *a- and *i- stems and PIE *e- and *o-grades for any of the considered types of paradigms. These reservations do not, however, undermine the value of the presented analysis, which relies on a coherent set of assumptions and sound internal logics.

Frederik Kortlandt ("Indo-European o-grade Presents and the Anatolian ḫi-conjugation", Chapter 7) suggests an explanation of the origin of the PIE o-grade presents taking into account the changes that took place on the way from the PIU verbal system to the PIE one. Kortlandt suggests that the o-present evolved from the original thematic verbs with the zero-grade of a root. Roots of the *CeC- type, which could not have the zero-grade, changed to *CoC- within the thematic formation at the stage when an automatic apophonic alternation between *e- and zero grade was replaced by an automatic alternation between stressed *e and unstressed *o. The o-grade eventually spread to thematic formations containing roots of the *CeRC- type. The e-grade thematic formations such as *bʰere- were analogically built at a later stage when both the root and the ending could have a full e-grade and after the split of the Anatolian branch.

Some components of Kortlandt's analysis are less explicit than others. For example, he claims that the PIE transitive thematic injunctive emerged through a "partial addition of the perfect endings" to an impersonal verb that had endings *-e (PIU demonstrative pronoun) in the singular and *-o (PIU reflexive pronoun) in the plural. However, the similarity is incomplete between the perfect endings and the original thematic endings reconstructed for the specified stage D (cf. Perf. *-$q_2 e$, *-$tq_2 e$, *-e, *-$mq_2 e$, *-$q_2 e$, *-er vs. Pres. *-o-q_1, *-e-q_1, *-e, *-o-mq_1, *-e-tq_1, *-o as indicated in the unnamed tables on pp. 104 and 105) even if one takes into account the sound law *q_2 (uvular stop = *h_2) > *q_1 (glottal stop = *h_1) before and after *o as suggested by Kortlandt for that matter.

In his contribution "The Proto-Indo-European Suffix *-r Revisited" (Chapter 2), **Stefan Bauhaus** argues that the locative *-r which underlies, for example, Av. zəm-ar- 'on/in earth' (next to Skt. loc. kṣám-i), was a PIE case ending, which originally characterized only nominal and pronominal forms, rather than an endingless locative of the heteroclitic stems or an adverbial ending, which could be added to nominal, pronominal, and adverbial stems. He further assumes that the case ending was reanalyzed as an adverbial ending *-(e)r and suffix *-ter- at a later stage of PIE by means of the following grammaticalisation path: locative case of a noun > local adverb > adposition. Based on the suggested analysis, the author reconstructs a set of PIE root nouns, e.g. PIE *h_1(e)up- 'top; surface', loc. *$h_1$up-er → PIE adv. *$h_1$uper 'above'. He further derives the comparative suffix *-tero- from spatial local adverbs within the model of semantic change 'above' ≈ 'more to the top compared to a reference point'.

According to Bauhaus, the locative *-r was opposed to directive in *-o (thus, loc. *$h_1$up-er, dir. *$h_1$up-o) in early PIE, an opposition that could in theory continue the PIU opposition of adessive and allative cases.

Bauhaus considers the temporal meaning of formations in *-r as secondary compared to the spatial meaning. However, the most secure of the presented examples for nouns and pronouns demonstrate both types of meaning, e.g. loc. *$h_2$us-ér 'at dawn', loc. *ǵʰim-er 'in winter' next to loc. *dʰǵʰm-er 'on/in earth', etc. It is probable that location in time and space could be expressed by the same morphological constituent at the earliest reconstructible stage of the proto-language. Moreover, the author favored the comparison of PIE *kʷor (Skt. kar-hi 'when') with Komi-Zyrianic kor 'when', in which case the reconstruction of the temporal meaning of *-r would be justified at the PIU stage.

Bauhaus argues that *kʷur, represented by clear Baltic, Albanian, and Armenian cognates (Lith. kur̃, Arm. ur 'where', Alb. kur 'when'), replaced early PIE *kʷor (attested, in particular, in Indo-Iranian, cf. Skt. kár-hi 'when') by analogy to *kʷu- of other pronouns. If correct, this isogloss may be relevant for establishing the internal relationships within the satəm branches setting Indo-Iranian apart from Baltic, Albanian, and Armenian.

Alexander Lubotsky ("The Indo-European Suffix *-ens- and Its Indo-Uralic Origin", Chapter 11) offers suggestive evidence for the reconstruction of a PIE suffix *-(e)ns-, which could be used to derive deverbal adjectives, e.g. *ǵʰh_2-ens- 'goose' (= 'gaping') from *ǵʰeh_2- 'to gape' and *meh_1-ns- 'month' (= 'measured') from *meh_1- 'measure'. According to Lubotsky, the adjective had a patientive meaning when derived from a transitive verb, and an agentive meaning when derived from an intransitive verb similarly to the PIE *nt-participle. Lubotsky further suggests that *-ens- and *-ent- were once parts of the same paradigm, the alternation of *s and *t within which was parallel to that of the perfect participle in *-uos-/-uot-. With that,

-ens- is considered an outcome of PIE *-ent-i*, a locative form of the PIU participle undergoing the sound change PIU *ti* > PIE *si*. This solution brings together the PIE *nt*-participle, verbal adjectives in *-(e)ns-*, and the PU nominal suffix *-nt-*. It is not entirely clear whether the author also derives PIE perf. ptc. *-uos-*, mentioned as a parallel to *-ens-*, from PIU loc. *-uot-i*. It would raise the issue of explaining the secondary spread of the locative form of the suffix within the PIE participial paradigm (see an overview of alternative explanations of the PIE perfect participle in Herzenberg 2006 among others).

Rasmus Gudmundsen Bjørn ("Pronouns and Particles: Indo-Uralic Heritage and Convergence", Chapter 3) explores the cogency of PIE and PU pronominal systems, in particular, derivatives of interrogative *ku* (PU *ku-*, PIE *ku-* > *kʷ-*), *ki-* (PU *ki*, PIE *kʷi-*) and *ko-* (PU *ku-*, PIE *kʷo-*), anaphoric *i/e-* (PU, PIE *i-*), and demonstrative anim. *so-* (PU *so(n)*, PIE *so*) next to inanim. *to-* (PU *to/tu*, PIE *tod*). The author assumes that PIE *kʷi-* and *kʷo/e-* expressed the contrast between the direct and oblique cases. He favors Dunkel's analysis of PIE *kʷi-* as continuing a pre-PIE compound of the interrogative particle *ku*, which is at odds with the equation PU *ki* and PIE *kʷi-* discussed in section 1.1. The author further assumes a sound law PIU *tˢ* > PU *tˢ*, PIE *s/t* (where PIU *tˢ* > PIE *t* is not supported), which allows to change the reconstruction of the PIU demonstrative pronouns to *tˢo-/*to-*. According to the author, the parallelism in the contrast of animate vs. inanimate expressed by the *tˢo-* and *to-* demonstrative pronouns constitutes important evidence in favor of the Indo-Uralic hypothesis.

Michiel de Vaan ("Proto-Indo-European *sm* and *si* 'one'", Chapter 14) suggests an insightful analysis of two (pre-)PIE lexemes meaning 'one' — *s(e)m-* and *si-*. While the former is well attested in the majority of the IE branches, the reflexes of the latter are only attested in Anatolian and possibly also in Tocharian and Greek. According to de Vaan, these two numerals go back to two different deictic pronouns, which developed the identificational meaning 'one' and then turned into the numeral 'one' independently and at different chronological stages (*si* in PIE and *sm* after the split of the Anatolian branch). He further hypothesizes that the deictic *si* is akin to the demonstrative *so* 'that' (nom.sg. of *to-*) and shows the *i/o* alternation of vowels seen, for example, in *kʷi(d)* 'what' and *kʷo* 'who'. These *si* and *so* are ultimately derived from pre-PIE inanimate absolutive and animate nominative of an identificational pronoun, respectively. Furthermore, the author sees traces of pronouns *sm* and *si* in the oblique forms of demonstrative pronouns, cf.

masc./neut. obl. *h₁e-sm-* and *to-sm-* and fem. obl. *h₁e-si-* and *to-si-* (with a change from inanimate to feminine gender semantics of deictic *si* after the split of the Anatolian branch).

While the semantic change 'one' > 'that one' or 'someone' is rather trivial, particularly as a source of indefinite articles, a reverse change from an identificational meaning 'that one' to numeral 'one' looks problematic, and yet it is assumed to have taken place independently two times at different stages of PIE. Additional justification of such semantic development would strengthen the suggested analysis.

Syntax: **Dag Haug** and **Andrei Sideltsev** ("Indo-Anatolian Syntax?", Chapter 4) address the reconstruction of a particular syntactic feature, the position of so called "bare interrogatives" (interrogative pronouns used as indefinite ones) in PIE. The chapter is based on an earlier study (Haug 2016) dedicated to bare interrogatives in principal ancient Indo-European languages, and offers an in-depth analysis of the Anatolian evidence. Based on the material of Old Hittite and other Anatolian languages, the authors argue that Proto-Anatolian (PA) had no bare interrogatives in conditional clauses and after negation markers. Such phenomena in Middle Hittite and in post-Anatolian IE must then be independent innovations. This assumption is further supported by the wider scope of usage of bare interrogatives in post-Anatolian IE than in Middle Hittite. Reconstructing PIE bare interrogatives of the Middle Hittite type would contradict a typologically justified generalization that bare interrogatives widen the scope of their uses over time (Haspelmath 1997). The presented analysis of the uses of Anatolian pronouns in different syntactic constructions constitutes an important contribution to the PIE syntax.

Milan Lopuaä-Zwakenberg ("The Anatolian "Ergative", Chapter 10) revisits the issue of neuter nouns that take a special marker when expressing the subject of transitive constructions in the Anatolian languages (Hitt. sg. *-anza*, pl. *-anteš*). The author starts with an overview of four competing analyses of that phenomenon: *-ant-* is a derivational suffix of personification; *-ant-* is an inflectional suffix that marks a change of morphological gender in the subject position of a transitive construction; *-anza/-anteš* is an ergative case; *-anza* is an ablative case used in the ergative function. Based on KBo 25.107, 4–6, where *appuzzi* and *appuzzianza* 'animal fat' do not show any lexical contrast, the author concludes that *-ant-* could have a purely syntactic function already in Old Hittite. Taking into account the Middle Hittite evidence of the same syntactic function, the author excludes the hypothesis of a

special ergative case in Old Hittite and hence in PA. The presented Cuneiform and Hieroglyphic Luwian examples point to derivational and inflectional functions of the suffix *-ant-* in these languages. For Lycian, the author tentatively assumes that the ergative case developed from an inflectional suffix, although the evidence is admittedly very poor. The Lycian ergative finds a parallel in the development of *-anza/-anteš* into an ergative marker in the later Hittite, which, according to Lopuaä-Zwakenberg, represents an independent innovation. As for the function of the underlying suffix **-ont-* in Proto-Anatolian (PA), the position of the author is less clear. On p. 145, one finds the following formulation: "…there existed a semantic suffix **-ont-* in Proto-Anatolian that had personification as one of its functions. Furthermore, we can regard the syntactic suffix **-ont-* as a degrammaticalisation of the semantic suffix **-ont-*." The cited statement is a plausible account of the presented evidence (although the term "grammaticalisation" might be more appropriate in this context). However, on the next page, one reads: "Since we find the syntactic suffix **-ont-* in all Anatolian languages in which the agentive is attested, we should reconstruct this grammatical suffix into Proto-Anatolian, which means that a suffix **-ont- that could only be used syntactically must be of pre-Proto-Anatolian date*." (Italic mine — *PK*). Thus, the derivational semantics of PA **-ont-* is discarded without good reasons together with the Anatolian evidence in its favor (for a more detailed analysis of the derivational semantics of *-ant-* in Anatolian now see Goedegebuure 2018 with literature). Does the author mean that the suffix of personification developed a syntactic function in PA or PIA? Was a syntactic function the only function of **-ont-* at any stage of PA? In conclusion, the author offers a suggestive hypothesis that the Anatolian constraint on the use of neuter nouns in the position of the subject of the transitive construction should be reconstructed for PIA and that the spread of the accusative ending to the nominative of neuter nouns is a plausible post-Anatolian innovation.

Rosemarie Lühr ("Headedness in Indo-Uralic", Chapter 12) investigates the head directionality parameter within the Indo-Uralic hypothesis, based on the assumption that PIE and PU were SOV languages. The study presents the comparison of head directionality features (such as the position of verb, adpositions, adjectival and genitival expressions, possessor, and relative clauses) in Old Hungarian, Hittite and Vedic. Lühr comes to a conclusion that Hittite and Old Hungarian show more common features characteristic of the SOV type than Vedic. Consequently, if PIU existed, its PIE descendant must have been closer to the

Hittite type rather than the Vedic one with respect to word order.

Terminology: The reviewed volume exposes a terminological issue that concerns other publications in the field. A rather wild array of terms, often referring to identical notions, can be found in the descriptions of the internal structure of the Indo-European language family. For example, the proto-language after the split of the Anatolian branch is labelled as "narrow IE" (Haug, Sideltsev; Zhivlov), "Classical Indo-European (CIE)" (Lopuhaä-Zwakenberg), "Late Proto-Indo-European (LPIE)" (de Vaan). Due to the lack of a unified terminology, the authors specify such terms in several chapters. In my view (partly in line with a recent discussion of this issue in Olander 2019), given that the notion of a language family refers to all Indo-European languages the relation of which is universally accepted, it is appropriate to retain the traditional term "Proto-Indo-European" as a designation of the family common ancestor at the expense of "Proto-Indo-Anatolian". The differences in hypotheses related to the internal structure of the family should not affect the name of the family, which as such does not contain any specific implication of a branching scenario. These are internal nodes that require operational labels, exclusive (e.g. "Post-Anatolian Indo-European", "Post-Tocharian Indo-European", etc.) or inclusive (e.g. "Italo-Celtic Indo-European", "Greco-Armenian Indo-European", etc.) within each given hypothesis.

To conclude, the reviewed volume is a stimulating contribution to the discussion of the internal structure of the Indo-European language family and the Indo-Uralic hypothesis. On the one hand, it highlights methodological issues concerning the internal reconstruction and distant comparison and, on the other hand, proposes new evidence and solutions. The volume is thoroughly edited and represents an exemplary piece of scholarly literature.

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