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Elisabeth Rieken  
unter Mitwirkung von  
Ulrich Geupel und Theresa Maria Roth

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# Hittite local adverbs in comparative perspective

Sergey Boroday – Ilya Yakubovich

**Abstract:** This paper addresses the origin of the formal, syntactic, and semantic contrast between the two symmetrical sets of cognate local adverbs in Hittite. It is argued that it came into being as a by-product of productive adverbial composition reconstructed for the history of the Anatolian languages. The core of the Hittite adverbs belonging to the innovative set consists of historical compounds featuring the reflex of PIE *\*en(i)*, which is traditionally translated as ‘in’ but must also have functioned as the generalized benefactive operator. A particularly important role in our reconstruction is allotted to the comparison with the Luwian language, where the compounds *app-an(ni)* ‘behind’, *parr-an(ni)* ‘in front, before’, and *tawiy-an(ni)* ‘opposite, against’ share non-trivial syntagmatic properties with the base adverb CUM-*na/ni* = */an(n)i/* < *\*én(i)*, which has a broad benefactive meaning.

## 1 Two Sets of Hittite Local Adverbs

The Hittite language features a class of indeclinable forms that can function as free-standing adverbs, preverbs, and postpositions depending on their syntactic position and other contextual factors (Hoffner and Melchert 2008: 294).<sup>1</sup> “Local adverbs” is a cover term that is frequently used for this class for the lack of a better alternative (cf. e. g. Tjerkstra 1999). The comparable category is called “local particles” in Vedic studies, where its investigation is largely associated with the work of Heinrich Hettrich and his students. Several Hittite local adverbs are cognate with both Vedic local particles and representatives of a functionally similar class in Homeric Greek, e. g. Hitt. *parā* ‘forth, further, out (of)’, Vedic *prā* ‘forth, before’, *prā pra* ‘further on’, Homeric Greek *πρό* ‘before, forward, forth’ (EWAia: 173–174). It is therefore appropriate to project the same category, together with its threefold functional distinction, back into Proto-Indo-European, including its early phase before the separation of Anatolian languages (“Indo-Hittite”/“Indo-Anatolian”).

A distinct innovation of Hittite, which was first addressed in Starke 1977, consists of the two cognate sets of Hittite local adverbs displaying symmetrical contrasts in both formal and functional properties.<sup>2</sup> The adverbs of the first set end in *-a*, have directional semantics, and lean toward the preverbal function. The adverbs of the second set mostly end in *-an*, denote location rather than direction, and tend to function as postpositions, governing dependent nouns in the genitive case in Old Hittite. This classification is not exhaustive, given that the Hittite language also features preverbs and postpositions provided with other endings, some of which will be mentioned later in this paper. Nevertheless, the contrast between the two

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2 For the applicability of this classification for Middle and New Hittite, albeit with some modifications, cf. Tjerkstra 1999: 132; Salisbury 2005: 241. For various limitations of Starke’s approach see Melchert 2009. Note also that the unity of the second set had already been discussed in passing in Neu 1974: 67–69. Starke’s contribution can, however, be singled out for fundamentally altering the common perception of Anatolian local adverbs.

sets is highly prominent within the system of Hittite local adverbs, both because it covers the core of this class and because the elements of the two sets neatly fall into pairs of genetically related lexemes. This distribution is illustrated in Table 1, which is taken wholesale from Hoffner and Melchert 2008: 295.

Table 1: Contrastive pairs of Anatolian local adverbs

Set I: ‘Place to which’	Set II: ‘Place where’
<i>anda</i> ‘into’	<i>andan</i> ‘within, inside’
<i>āppa</i> ‘back’	<i>āppan</i> ‘behind, after’
<i>katta</i> ‘down’	<i>kattan</i> ‘below’
<i>parā</i> ‘out, forth’	<i>pēran</i> ‘in front, before’
<i>šarā</i> ‘up(ward)’	<i>šer</i> ‘above, over’

In purely formal terms, the origin of the first set appears to be straightforward. The ending *-a* characterizing this group is synchronically identical to the ending of the allative (terminative) case in Old Hittite, which has likewise received a thorough treatment in Starke 1977. As a matter of fact, when the lexemes of this group form a syntactic unit with a nominal form in Old Hittite, it normally appears in the allative case, e. g. *anda parna* ‘into the house’ (Starke 1977: 133). At the moment this seemed enough to hypothesize that the final vowel of the adverbs of the first set has the same origin as the allative case endings. On the other hand, Starke recognized that the meaning of the allative case in old Hittite was a movement toward a particular goal, whereas the local adverbs in *-a* are generally assumed to mark direction alone. Melchert (2017) cites a minimal pair from the same text KBo 17.11+ i 6 *nu āppa tienzi* ‘they step back’ vs. KBo 17.11+ i 3–4 <sup>LÚ.MEŠ</sup> *MEŠEDI-an āppan tienzi* ‘they step behind the body-guard men’, which is called to illustrate how a local adverb from the first set may be replaced with its counterpart from the second set if the goal is overtly marked.

The functional mismatch between the allative case nouns and the local adverbs ending in *-a* supports the hypothesis that this group of adverbs may have more than one origin, which appears to be likely on independent etymological grounds. On the one hand, Hitt. *parā* ‘out, forth’ is unlikely to contain a historical case ending, since, as mentioned above, it has lexical cognates in Vedic and Greek, neither of which features a synchronic allative case.<sup>3</sup> Furthermore, neither Vedic *prá* ‘forth, before’ nor Homeric Greek *πρό* ‘before, forward, forth’ require the existence of a goal in the syntactic or even semantic structure of the clauses where they occur. The same is true of Hitt. *katta* ‘down’ and its likely Greek lexical cognate *κατά* ‘id.’. The case of Hitt. *anda* ‘into’ and its Archaic Latin cognate *endo* ‘id.’ is somewhat different, since the use of these adverbs normally implies specific goals, but here, too, one can postulate an Early Indo-European archetype. On the other hand, *šarā* ‘up(ward)’ does not have lexical cognates outside Anatolian, and therefore is more likely to go back to an allative case noun, as suggested, for example, in Rieken 1999: 47. The earlier meaning of such a form could be ‘on top’ (allative), whereas *šer* may have originally represented the locative member of the same paradigm. After being drawn into the same class with *parā* etc., the adverb *šarā* has naturally lost its terminative properties.

3 Theoretically one can, of course, claim that the Greek and Vedic “local particles” contain a historical allative ending, which was productive in Indo-Anatolian but lost as a grammatical morpheme in Late Indo-European. But even within the community that entertains such a hypothesis, *\*-o* is merely one of several candidates for the Indo-Anatolian allative case marker. For details, see Melchert 2017, and Nikolaev 2010.

Although certain details of the distribution between the inherited adverbs and restructured allatives in *-a* within Set I remain disputable, the basic pattern of their interaction is reasonably clear. The semantic distance between moving in a particular direction and toward a particular goal is close enough to be compatible with a phonetically mediated merger between the two categories. By contrast, the situation with the origin of the *an*-ending, which characterizes all but one member of Set II, is considerably more problematic. Therefore it is the historical development of Set II that constitutes the main topic of the present paper.

## 2 Origin of Hittite Set II: Previous Accounts

All the Hittite local adverbs of Set II, except for *šer* ‘above, over’, are characterized by the suffix *-an*. The pioneering work of Frank Starke, which introduced the division of Hittite local adverbs into two sets, contains a hypothesis that the local adverbs in *-an* were synchronically perceived as accusatives. The starting point of his reasoning was the co-occurrence of these lexemes, but not those of Set I, with the Old Hittite possessive clitic pronouns *=mit* ‘my’, *=tit* ‘thy’, *=šit* ‘his, her, its’, and *=šmit* ‘their’, which he interpreted as accusative singular neuter forms (Starke 1977: 133). Logical as it may seem at first glance, this solution faces a variety of problems. On the functional level, it is hard to explain why the forms provided with accusative endings have locational semantics. Although the accusative case is used with special functions in a variety of ancient Indo-European languages, it normally marks goal rather than location, and Hittite is no exception in this regard (Zeilfelder 2001: 25–39). Naturally, this difficulty could not elude Starke’s attention, and indeed he remarks in a footnote to his analysis: “Die Auffassung des Hethiters braucht sich selbstverständlich nicht mit der sprachwissenschaftlichen Beurteilung dieser Form zu decken” (Starke 1977: 133, fn. 10). Later on in the same book, Starke specifies that the *-an* suffix functioned as the accusative of respect. For example, *peran=mit* ‘in front of me’ allegedly had the literal meaning “with regard to my front” in Old Hittite (Starke 1977: 167).

Unfortunately for Starke’s hypothesis, it was found to exhibit a formal vulnerability. The analysis of the Old Hittite data undertaken in Melchert 2009 shows that the nom.-acc.sg.n forms of possessive pronouns overwhelmingly exhibit a different vocalism, namely *=met*, *=tet*, *=šet*, and *=šmet*. Furthermore, the same type of possessive suffixes with the *e*-vocalism is normally attached to the local adverbs *šer* ‘above, over’ and *kitkar* ‘at the head’, which do not feature the *an*-suffix and are generally taken as recent nominalizations of endingless locatives. But the adverb *pēran* ‘in front, before’, the member of the *an*-group that co-occurs with the possessive clitic pronouns most frequently, does show a predilection for forms like *=šit* ‘his, her, its’ or *=šmit* ‘their’. In this respect, it is to be compared not with the nominative-accusative singular neuter nouns, but rather with the ablative and instrumental forms, which likewise tend to attach possessive clitics with *i*-vocalism (cf. already Melchert 1984: 122–125).

But why should the adverbial phrase *pēra(n)=šit* ‘in front of him’ share formal properties with the noun phrase *iššaz=(š)mit* ‘from their mouths’? This is clearly not an instance of formal analogy, since the adverb *pēran* does not rhyme with either ablative nominal forms in *-az* or instrumental nominal forms in *-it*. Therefore Melchert (2009) has no other choice but to assume that *pēran* was perceived as functionally akin to certain ablatives or instrumentals at the point when it came to be combinable with the enclitic possessive pronouns. And indeed, Hittite features a number of adverbs with locational semantics derived from ablative nominal forms, such as *araḫza* ‘outside’, *andurza* ‘inside’, or *tapuṣza* ‘beside, next to’. The limited Old Hittite corpus at our disposal is not conducive to tracing the pattern of their combination

with the possessive clitics, but such a combination must have been grammatical and, in all likelihood, required the use of ablative-instrumental clitic forms such as *=šit* and *=šmit*. This group could provide a natural bridge between the genuine ablatives and the local adverbs in *-an*. To be sure, Melchert's account leaves open a question why the same pattern was not extended, for example, to the local adverbs *šer* and *kitkar*. But it remains a truism of historical linguistics that one frequently cannot predict the precise scope of analogical leveling.

Brosch (2014: 363) builds up on Melchert's analysis and carries it further, assuming that the *an*-suffix of Set II goes back to the etymological ablative ending *\*-e-m*. But the only formal argument behind this reconstruction is the alleged productivity of the ablative-instrumental ending *\*-m* in Proto-Anatolian. Brosch cites Goedegebuure 2007, a paper devoted to demonstrating the ablative-instrumental function of Luwian *zin* 'from/by this' and *abin* 'from/by that'. The same paper contains a plausible comparison between the ending *-in* of the Luwian pronominal forms and the Latin suffix *-im* occurring in such adverbs as *olim* 'at that time', *interim* 'at the time between' or *utrimque* 'from both sides'. This speaks indeed for the reconstruction of the Indo-European adverbial suffix *\*-im*, perhaps extended to certain pronominal endings already in the proto-language. But Goedegebuure offers no real evidence for the ending *\*-e-m* with a similar meaning. To be sure, the collocation *zan aban=ha* in the Luwian letter ASSUR a § 6, could be interpreted as containing the requisite ending if its meaning were 'from here to there' (Goedegebuure 2007: 333). But there is no semantic gain in such an interpretation as opposed to the traditional 'now and then', while in formal terms the traditional solution is far more straightforward, since it allows to take the endings *-an* as accusatives of time in *\*-om*. Accordingly, the assumption of Hitt. *pēran* 'before' < PIE *\*per-e-m* and the parallel reconstructions of Set II remain fully *ad hoc*.

Thus one can provisionally conclude that the accusative reconstruction of *-an* in Set II is semantically problematic and does not solve any formal issues, its ablative reconstruction is formally impossible, and the syntactic behavior of pronominal clitics can be treated separately from the etymologies of local adverbs serving as their hosts. What remains is the possibility of investigating the origin of the adverbs belonging to Set II through lexical comparison. Tracing the etymologies of Hittite local adverbs had naturally been on the agenda of Indo-Europeanists even before Starke 1977 substantiated their synchronic division into two sets. The results of this effort can be found in the recent dictionary of Indo-European particles (Dunkel 2014) and are summarized in the table below.

Table 2: Indo-European reconstruction of Hittite local adverbs (Set II)

<i>andan</i>	<i>*én-dóm</i> 'at home', cognate with Gk. ἔνδον 'inside'	Dunkel 2014: 159
<i>appan</i>	<i>*óp-ām</i> 'behind', cognate with Y-Av. <i>apqm</i> 'afterwards'	Dunkel 2014: 67
<i>kattan</i>	<i>*kát-VN</i> , second element unclear, possibly analogical	Dunkel 2014: 420
<i>pēran</i>	<i>*pér-a em</i> , cognate with Gk. πέρᾱν 'on the other side'	Dunkel 2014: 609
<i>šer</i>	<i>*sér</i> 'above'	Dunkel 2014: 682

The comparisons offered in Table 2 vary in the degree of their plausibility. The most straightforward one is the exact phonetic and semantic match between Hitt. *andan* and Greek ἔνδον

‘inside’, while its Proto-Indo-European reconstruction gains further support from Classical Armenian *əntani* ‘relative’ < \**en-dom-jo-* (cf. Arm. *toun*, obl. *tan* ‘house’). The binary comparison between Hitt. *appan* ‘behind, after(wards)’ and Young Avestan *apqm* ‘afterwards’ is phonetically unproblematic, but the semantic correspondence is imprecise, since the meaning of the Avestan adverb is strictly temporal. Even less convincing is the attempt to link Hitt. *pēran* ‘in front, before’ with the semantically distant Gk. *πέρᾱν* ‘on the other side, across’, which appears to represent a language-specific derivative of Gk. *πέρᾱ* ‘beyond, further’. No lexical comparisons are offered for Hitt. *kattan* ‘below’ or *šer* ‘above, over’.

Since Dunkel (2014) primarily targets Indo-European reconstruction, he naturally does not comment on the origin of Set II as a synchronic class of Hittite local adverbs. In principle, the array of etymologies outlined above could be compatible with the scenario of analogical conspiracy. One could argue, for example, that the reflexes of PIE \**en-dom* ‘at home’ and \**op-ām* ‘behind’ accidentally began to rhyme in Pre-Hittite, and this triggered the perception of *-an* as a suffix of adverbs with locational meaning followed by its analogical extension to other adverbs of the same semantic class. What speaks, however, against such a scenario are the syntactic properties that Hitt. *andan*, the best candidate for an inherited *-an* formation, which separate it from the other members of Set II. Unlike *pēran*, *appan*, *kattan*, or even *šer*, *andan* does not form phrases with either genitive case nouns or possessive clitics in Old Hittite (Starke 1977: 133). Even more striking is the behavior of *andan* in New Hittite where it functions as a postposition and preverb with directional meaning, thus virtually swapping functions with *anda* (Salisbury 1999). It stands to reason that the etymologies collected in Dunkel 2014 do not represent a sufficient starting point for the explaining the Hittite data. The origin of Set II remains an open problem.

### 3 Local Adverbs of Set II: Internal Reconstruction

There would, of course, be no need for problematic Indo-European comparisons if an explanation for the cohesions in Set II were available at the Anatolian level. At this point it is appropriate to remember that the only member of Set II that does not feature the synchronic *-an* suffix, namely *šer* ‘above, over’, has been formally analyzed as an endless locative (Neu 1980: 35–36). If the reconstruction *andan* < \**en-dom* can be maintained (cf. below in this section), we are likely to be dealing with another instance of the endless locative, this time combined with the preposition \**en*. Given the locational semantics of Set II, these interpretations are straightforward from the functional viewpoint. This raises the question whether additional adverbs of this group could likewise be analyzed as locative formations.

We submit that there is a superior alternative to treating the adverbs of local Set II as accusatives, instrumentals, or a collection of heterogeneous formations. According to our hypothesis, some of them historically represent the forms extended by the postposition \**en*, a cognate of Proto-Indo-European \**en(i)* ‘in’ (Lat. *in*, Gk. *ἐν(ι)*, Goth. *in* etc.). We suggest that *pēr-an* ‘in front’, *app-an* ‘behind’, and *katt-an* ‘below’ are likely to go back to the inherited postpositional phrases. In the instance of *andan* ‘inside’ < \**en-dom* ‘at home’, the same mechanism of proportional analogy may have brought about its metanalysis as *and-an*. Whether the preposition \**en* was originally attached to endless locatives or replaced the locatives in \*-i is hard to say, but in either case Set II emerges as a group of locative expressions, which conforms with its prototypical semantic properties.

A collateral advantage of the new approach is the possibility to motivate the use of the genitive case with the adverbs of Set II in Old Hittite. It is logical to assume that in Pre-Hittite some of them were still perceived as phrases consisting of locative nouns with or without



overt postpositions, e. g. *pēr-an* ‘front-in’, *šer* ‘top-(on)’. Now, if such phrases had to have further dependents, they were treated as nouns depending on other nouns and acquired the genitive case according to the standard rule, e. g. *hašsuw-aš pēr-an* ‘in front of the king’, *parn-aš šer* ‘(on) top of the house’. By contrast, the directional adverbs of Set I, which did not contain morphological compounds, were not treated in the same period as complex constituents and therefore remained incompatible with additional nominal dependents. In other words, the innovative syntactic behavior of Set II in Old Hittite correlates with the innovative morphological structure of some of its representatives.<sup>4</sup> One should, however, mention the special case of *andan* < \**en-dom*, which could not be combined with genitive case nouns and so was apparently not perceived as a prepositional phrase. Its exceptional syntactic properties can be due to its archaic right-branching morphological structure, which runs afoul of the dominant Hittite left-branching word order. Presumably, the metanalysis of *an-dan* as *and-an* had not yet occurred by the time when the other members of Set II came to govern complements in genitive.

The use of Set II with dependent nouns in genitive must have predated the functionally similar combinations of the same adverbs with possessive clitics. The case assignment in the latter case does not obey any standard rule. As mentioned in the previous section, forms such as *pēra(n)=šit* appear to show the ending of the instrumental case, but *šēr=š(a)met* ‘over them’ can only be interpreted as containing a nominative-accusative neuter clitic. Both examples above contrast with *katti=šši* ‘with him’, where the Old Hittite adverb displays the historical dative-locative ending *-i* and is also combined with the possessive clitic in the dative-locative case (Melchert 2009: 615–616). This embarrassment of choice is highly unlikely to reflect an archaic distribution, but we are rather dealing here with late *ad hoc* solutions. For example, *katti=šši* may have been formed on the model of *pēdi=šši* ‘at his place’ (thus already Melchert 1984: 124–125). The combination *šēr=š(a)met* implies that *šēr* came to be perceived as nom.-acc.sg.n, although, pace Melchert 2009, there are no reasons to think that this had been the original state of affairs. Forms such as *pēra(n)=šit* require a more complicated analogical scenario, which was presented in the previous section. These late aberrations aside, the adverbs of Set II can be now described as a structurally uniform group, which represents an intrinsic merit of the proposed new solution. Nevertheless, the internal reconstruction offers at least three more ways of checking its plausibility. First, one can look for parallel instances of secondary local adverbs derived as compounds within the history of Hittite. Second, tracing additional reflexes of \**en* through the Hittite lexicon may be conducive to assessing the productivity of this morpheme. Finally, a responsible account for the sound change \**en* > *-an* must include a statement of its possible licensing conditions.

Beginning with the first problem, the structure of the postulated compounds in *-an* need not be treated separately from that of the Hittite local adverbs that synchronically end in *-anda*, e. g. *appanda* ‘back, behind’, *arahzanda* ‘around, outside’, *kattanda* ‘down into’, *parranda* ‘through’ and *par(r)iyanda* ‘beyond’. The adverbs of this group significantly vary

4 The coexistence of different strata of prepositions in the same language is not typologically remarkable. Compare, for instance, the case of modern Persian, where a limited number of primary prepositions, which go back to the Indo-Iranian “local particles” and directly precede the nouns that they govern, contrasts with a larger number of the so-called “*izafe*-prepositions”, which are frequently homonymous with nominal forms and require the *izafe* particle *-(y)e-* as a linker between them and the nouns to follow (Windfuhr and Perry 2010: 241–242). Cf. Pers. *dar kār* ‘at work, active’ vs. *sar-ekār* ‘at/to the work(ing place)’, where *dar* is ultimately cognate with Lat. *inter* ‘between’, while *sar* is directly comparable with Pers. *sar* ‘head’. The prepositions of the second group demonstrably developed from inflected nominal forms and their Baluchi cognates still govern dependent nouns in the genitive case (Jahani and Korn 2009: 657). A somewhat different situation is observed in Hindi and a number of other Indo-Aryan languages where the secondary adpositions of nominal origin appear to have fully ousted the inherited “local particles” (Reinöhl 2016).

in their frequency, and the last two lexemes are suspect of representing loanwords from Luwian (cf. Luw. *parran* ‘in front, before’ vs. Hitt. *pēran* ‘id.’ and Luw. *pari* ‘out, forth’ vs. Hitt. *parā* ‘id.’).<sup>5</sup> In the instance of *araḫz-anda*, the suffix *-anda* is secondarily appended to an ablative case form *araḫza*, which is attested as well in the adverbial function with the meaning ‘outside’. But *app-anda* ‘back, behind’ and *katt-anda* ‘down into’ represent perfect formal counterparts to *āpp-an* ‘behind, after’ and *katt-an* ‘down, below’, while their directional semantics vindicates their synchronic connection with *anda* ‘into’.<sup>6</sup> These findings strengthen the hypothesis that the adverb *\*an* could likewise function as a second member of Hittite compounds.

Turning to the reflexes of *\*an* in other positions in Hittite, the derivation of Hitt. *andan* ‘inside’ from a prepositional meaning ‘at home’ has already been mentioned above. As for the new material, one should mention first the Old Hittite sentence particle =*an*, which always occurs at the end of the Wackernagel clitic chain and therefore belongs to the category of the so-called “locative” particles. Although its precise meaning defies interpretations, Kloekhorst (2008: 173) points out that it often occurs together with the preverb *anda* and therefore “is connected with PIE *\*(h<sub>1</sub>)en* ‘in’”. Second, the Hittite adverb *andurza* ‘inside’ was interpreted as a combination of three morphemes *an-dur-z(a)* ‘in-door-s’, cf. the near antonym Ved. *prā-dūr* ‘manifestly, visibly’ (Kloekhorst 2008: 188 with ref.). Finally, the noun *an-tuwaḫḫaš-/an-tuḫš-* ‘human’ was plausibly analysed as a possessive compound ‘having breath inside’, cf. Gk. *ἐν-θυμός* ‘spirited’ (Kloekhorst 2008: 189 with ref.).

With regard to the phonetic interpretation of these etymologies, there are two different schools of thought. According to Melchert 1994: 134–135, Proto-Anatolian “short *\*/eN/* becomes *\*/aN/* before a dental and in final position, i. e. when the nasal is coronal.” An obvious group of examples that bleeds the proposed sound change consists of the verbal preterit endings 1sg. *-men* and 2sg. *-ten*, as well as the imperative ending 2sg. *-ten*. Its analogical leveling based on the present forms 1sg. *-meni* and 2sg. *-teni* would be very likely (cf. Hoffner and Melchert 2008: 181–182). In a similar fashion, forms such as *kuēnzi* ‘he kills’ or *iēnzi* ‘they do’ can, in principle be explained through paradigmatic leveling to *kuenun* ‘I kill’ or *iēzzi* ‘he does’. If one is not willing to operate with such an extended set of analogies, one can assume, following Yoshida 1997: 191–192, that the change *\*en > an / \_\$* was limited to unstressed syllables. With regard to the problem under discussion, this additional licensing condition would imply that the compounds in *\*-en > -an* carried stress on their first morpheme.

An alternative approach to the same compounds is most clearly stated in Kloekhorst 2008, although one can trace its origins back to at least the early twentieth century.<sup>7</sup> Accepting

<sup>5</sup> The compounds with the same etymological suffix as the second element are also well represented in Luwian and Lycian texts, e. g. *appanta* ‘thereafter’, *sarranta* ‘on top of’, *zantanta* ‘down’, Lyc. *epñte* ‘thereafter’, *tewēnte* ‘opposite’. For the reading of the last form in TL 44.53 see now the photograph in Schürr 2009: 163 and the transliteration on the following page.

<sup>6</sup> Furthermore, Nikolaev (2010) argues that *menaḫḫanda* ‘opposite, against’, which was traditionally segmented as *mena-ḫḫanda*, represents instead yet another compound in *-anda*. He takes the first element of the hypothetical *menaḫḫ-anda* as the frozen allative case of *mēna/i-* ‘face, cheek’. If his segmentation and etymology are correct, we obtain the only instance where the allative case ending retained its final laryngeal in composition, which would make the compound old indeed. A problematic aspect of this etymology is the absence of lenition *-ḫḫ- > -ḫ-* (Melchert, pers. comm.).

<sup>7</sup> Already Sturtevant (1933: 104) offered *\*n-dhur-* as an archetype for *andurza* ‘inside’ and specified the reconstruction of its first morpheme as the syllabic *n*. He (ibid.) also listed Hitt. *anda* among the forms featuring the reflexes of the syllabic *n*. An argument that Kloekhorst (2008: 185) uses in favor of such an interpretation is the match between Hitt. *anda* ‘into’ and Lyc. *ñte* ‘id.’. The last adverb can be contrasted with e. g. Lyc. *ēti* ‘at’ (Durnford, pers. comm.). It is not, however, proven that in this case we must be dealing with the contrast between Indo-European ablaut variants as opposed to the effects of Lycian syncope in unstressed syllables (cf. Melchert 1994: 135, 320).

the view that Hitt. *an-* is ultimately cognate with Gk. ἐν, the Leiden scholar attributes the vocalism of *an-* not to a language-specific development, but rather to the inherited effects of Indo-Hittite ablaut. Thus, Kloekhorst (2008: 189) formally reconstructs *an-tuwahḫaš-/an-tuḫš-* ‘human’ as *\*h<sub>1</sub>n-dhueh<sub>2</sub>-ōs* vs. *\*en-d<sup>h</sup>weh<sub>2</sub>-ōs* advocated in Rieken 1999: 190–191. One argument that contradicts the zero-grade analysis stems from Luwian and will be addressed in the following section, but ultimately making a choice between these two alternatives is beyond the scope of the present paper. For our purposes it seems enough to state that if the generalization of the zero grade *\*(h<sub>1</sub>)n-* were acceptable for the first compound member, one can also propose the same reconstruction for the final *\*(h<sub>1</sub>)n* (cf. the approach of Oettinger discussed immediately below). Therefore the adepts of the Leiden school views should be able to follow the morphological argument of the present paper using, where appropriate, their own phonological interpretations.

At the final stages of our research we became aware of a different proposal, which operates with the zero grade *\*-n* corresponding to the full grade *\*-en* ‘in’. Oettinger (2016: 232–233) suggests that this element underlies the final nasal of Gk. ἐνδον and Hitt. *andan* ‘inside’, as well as the other final nasals of the Hittite Set II. Furthermore, he reconstructs the same zero-grade formation in the locative singular masculine/neuter forms of Old Indic pronouns, e.g. Ved. *asmī-n* vs. Av. *ahmi* ‘in him/it’. Unfortunately, the paragraph-long presentation of the new hypothesis in Oettinger 2016 does not dwell on the divergent syntactic behavior of *andan*, which makes this adverb a rather atypical representative of Set II. While the syntactic considerations offered above preclude us from endorsing the new etymology of Hitt. *andan*, the core of Oettinger’s proposal amounts, in fact, to an independent replication of our results.<sup>8</sup> Oettinger’s ideas about the origin of Set II were endorsed and developed in Francia 2016.

Summing up, our internal reconstruction of Set II in Hittite suggests that its core structurally resembles English *with-in*. We argue that our hypothesis is superior to the available competing accounts, operates with the otherwise attested morphological material, conforms to the known rules of Hittite historical phonology, and is straightforward from the typological viewpoint. None of these considerations, however, can be said to represent a definite proof. Here as everywhere else, the results of internal reconstruction must draw upon comparative evidence for their ultimate valuation. In what follows we intend to offer corroboration for the proposed scenario, which comes from the Luwian language.

#### 4 Adverb CUM-*ni/a* in Luwian

The situation in Luwian is different from the one in Hittite in that the reflex of PIE *\*en(i)* ‘in’ appears to be directly attested there as a local adverb. Its identification was due to a joint effort of Petra Goedegebuure and Ilya Yakubovich. The former scholar explored consequences of a hypothesis that the graphic similarity between the Anatolian hieroglyphic signs L57 (= SUB/INFRA) and L58 (= CUM) must correspond to the formal affinity of the lexemes these logograms stand for. The first of the two signs is used as a logogram for the Luwian local adverbs SUB-*na-na* = /annan/ ‘under’ and INFRA-*ta* ‘down’, which was convincingly interpreted as /zanta/ in Goedegebuure 2010. The second one is peculiar to the Luwian local

<sup>8</sup> Oettinger (2016: 232) objects against the reconstruction ἐνδον < *\*en-dom* on the grounds that one would expect *\*dōm* or *\*dēm*, but not *\*dom* as the locative case form of IE. *\*dom-/dem-* ‘house’ and cites Av. *dqn* ‘in house’ in support of his objection. It is, however, to be noted that no traces of the extended ablaut grade are to be found in the locative case forms in Greek or, for that matter, in Anatolian. On the other hand, the hypothesis that Ved. *asmīn* contains a reflex of *\*-en* appears to be worth pursuing, perhaps together with revisiting the etymology of the Indo-Iranian preverb *\*ni-* (for the present state of the affairs, cf. EWAia: II: 40–41 with ref.).

adverb that is variously spelled as CUM-*ni*, CUM-*ní*, or CUM-*na*, with the preference for the first variant. Depending on whether it is cognate with the adverbs /*annan*/ or /*zanda*/, its phonological interpretation can be either /*an(na)* ~ *anni*/ or /*zandan(ni)*/. Building up on the personal communication of Yakubovich, Goedegebuure gave preference to the first solution on the grounds that the Lycian preverb *ēn-* represents a perfect formal cognate to the postulated Luwian /*an(ni)*/.

Additional evidence for the same interpretation is offered in Yakubovich 2010a. This paper emphasizes the comparison between the combination CUM-*ni a-* (*di*), attested in Late Luwian, and the verb *anni-* (*di*), which is typical of the Kizzuwatna dialect of Luwian. Both verbs broadly mean ‘to cause’ and take three arguments, agent, theme, and goal. It is argued that the Kizzuwatna form *anni-* (*di*) represents the contraction of the earlier phrasal verb *anni a-* (*di*), which vindicates the equation /*anni*/ = CUM-*ni* (Yakubovich 2010a: 378). Note that the effects of Čop’s Law observable in the cuneiform transmission of *anni-* (*di*) support the reconstruction \**én(i)*, as opposed to \**h<sub>1</sub>ni*, for the Luwian adverb under discussion. For our present purposes, however, it is more important to contrast the transitive base *a-* (*di*) ‘to do, make; to treat ritually, celebrate’ with its benefactive derivative CUM-*ni a-* (*di*) ‘to cause, offer (to someone)’ (Yakubovich 2010b: 60).<sup>9</sup> Further examples of the benefactive derivation involve *izzi-* (*di*) ‘to do, make’ vs. CUM-*ni/a izzi-* (*di*) ‘to cause, attach’ (1–4) and *izzista-* (*i*) ‘to honor’ vs. CUM-*ní izzista-* (*i*) ‘to assure, provide’ (5–6).

- (1) KARKAMIŠ A11a § 19, cf. Hawkins 2000: I 96  
|*za-zi-pa-wa/i* (DOMUS)*ha+ra/i-sà-tá-ni-zi* <sup>1</sup>*á-na-ia* BONUS-*sa-mi-i* FEMINA-*ti-i* (DOMUS+SCALA)*tá-wa/i-ni-zi i-zi-i-ha*

*zanzi=ba=wa*                      *haristaninzi*                      *Annaya*                      *wasammi*                      *wanatti*  
this.ACC.PL.C=but=PTCL upper.room.ACC.PL Anna.DAT.SG dear.DAT.SG wife.DAT.SG  
*tawanninzi*                      *izziha*  
place.to.stand<sup>2</sup>.DAT.SG make.1.SG.PRT

‘These upper rooms I made as places to stand<sup>2</sup> for my dear wife Anna.’

- (2) KARKAMIŠ A6 § 13, cf. Hawkins 2000: I 124  
CUM-*ni-pa-wa/i-tú-ta-* <sup>1</sup>*á-pa-sá* |FRATER.LA-*zi-i* |*i-zi-i-ha*

*anni=ba=wa=du=tta*                      *abas(sa)* FRATER.LA-*nzi* *izziha*  
near=but=PTCL=he.DAT=PTCL that.GEN brother.ACC.PL make.1.SG.PRT

‘And to him I attached his brothers.’<sup>10</sup>

9 The term “applicative”, used with reference to the function of *anni-* (*di*) in Yakubovich 2010a, appears to be not quite accurate. Although in the parlance of Uto-Aztecan and Bantu linguistics the difference between the applicative and the base verb may simply consist in that the former has one more indirect object, the cross-linguistic definition of the applicative constructions stresses their transitivity properties. Typically they are able to turn indirect objects of intransitive base verbs into direct objects, whether or not an additional indirect object is added to the clause argument structure (Peterson 2007: 2). Therefore in this paper we use a more neutral term “benefactive” for the transformation that adds an indirect or oblique object without affecting subject or direct object properties.

10 The opaque translation of Hawkins 2000 ‘And with him I made his brothers’ must have been influenced by the traditional assumption that the basic meaning of CUM-*ni/a* is ‘with’, on which see below. The immediately preceding context focuses on the favors that Yarri, regent of Carchemish, bestowed upon the heir apparent Kamani. In what follows Yarri refers to specific objects, *katun(i)-* and *tarpuna-*, which he provided to Kamani’s younger brothers in accordance with their predilections. Then the narration switches back to Kamani. The present translation is compatible with both the hypothesis that these objects marked the status of Kamani’s brothers in his retinue and that they represented mere toys given to little children who were placed under their elder brother’s protection.

- (3) MARAŞ 3 § 3, cf. Hawkins 2000: I 268  
 á-mu-[p]a-wa/i-na (“[STA]TUA”)ta-ru-sá i-zi-ia-ha  
 amu=ba=wa=an tarussa izziyaha  
 I.NOM=but=PTCL=he.ACC.C statue.ACC.SG make.1SG.PRT  
 ‘I made him as a statue.’
- (4) KARATEPE 1 (Hu.) § 15, cf. Hawkins 2000: I 50  
 |á-mi-há-wa/i |DOMINUS-ní-i |(NEPOS)ha-su- |OMNIS.MI-ma (BONUS)sa-na-wa/i-ia  
 |CUM-na i-zi-i-há  
 ami=ha=wa nanni hassu(wa) tanima sannawiya  
 my.DAT.SG=and=PTCL of.lord.DAT.SG family.DAT.SG all.NOM.PL.N good.NOM.PL.N  
 anni izziha  
 PREV make.1SG.PRT  
 ‘And I caused all good things to my lord’s family.’
- (5) KARKAMIŠ A17b § 3, cf. Hawkins 2000: I 176  
 |za-ha-wa/i DEUS-ni-’na’ |i-zi-i-sa-ta-tú-u  
 zan=ha=wa massanin izzistattu  
 this.ACC.SG.C=and=PTCL god.ACC.SG honor.3SG.IMP  
 ‘Let him honor this god.’
- (6) KULULU 4 § 12, cf. Hawkins 2000: II 445  
 a-wa/i OMNIS-mi sa-na-wa/i-sa<sub>8</sub> CUM-ní i-zi-i-sa-ta-ha  
 a=wa tanimi sannawisa anni izzistahha  
 PTCL=PTCL all.DAT.SG good.ACC.SG PREV honor.1SG.PRT  
 ‘For everyone I assured (his) well-being.’

Thus one can advance a hypothesis that one of the functions of the preverb CUM-*ni/a* was adding an extra thematic role (goal) to the argument structure of the base verb. Such a syntactic interpretation obtains independent confirmation from comparative evidence. It has been argued that Luw. CUM-*ni/a* = /an(ni)/ represents a reflex of PIE \**en(i)* and a lexical cognate of the Greek local adverb ἐνί ‘inside’ and its clitic allomorph ἐν. When attached as a prefix to the verbal stem, Greek ἐν frequently has benefactive semantics, just as its Luwian cognate does. Thus one can contrast Gk. ποιέω ‘to make’ vs. ἐμ-ποιέω ‘to cause (something to someone)’, τυγχάνω ‘to happen’ vs. ἐγ-τυγχάνω ‘to meet, fall in (with someone)’, εἶπον ‘I said’ vs. ἐν-έπω ‘to tell (something to someone)’ (Yakubovich 2010a: 381). This non-trivial functional parallel naturally represents yet one more argument supporting the identification CUM-*ni* = /anni/.

Yakubovich (2010a) tentatively attributed the benefactive function of Greek ἐν and Luwian CUM-*ni/a* to a secondary development within the protolanguage, largely because it operated with the traditional basic meaning of CUM-*ni/a* ‘with’. This issue, however, cannot be considered settled. The prototypical context for the comitative function is the noun phrase “A (together) with B”. The Luwian lexeme used in such a function is not CUM-*ni/a* but *ku-ma-pi*, which is used in the noun phrase ‘Harranean (Moon-god) together with Kubaba’ *hara/i-na-wa/i-ni-sa*(URBS) (DEUS)*ku+AVIS-ia ku-ma-pi* (KARABURUN §§ 8–10, Hawkins 2000: II 481). By contrast, in all those instances where Luw. CUM-*ni/a* can be translated as ‘with’, it appears as constituent of verb phrases, which links predicates with their indirect

objects. Furthermore, examples (7) and (8) contain juxtaposed sentences with and without this local adverb, which shows that its mere addition is capable of integrating an indirect object into the verb argument structure. Therefore nothing really distinguishes these cases from e. g. that of Gk. (ἐγ-)τυγχάνω, except that in (8) one observes the topicalization of the local adverb CUM, which triggers its surface separation from the clause predicate.

- (7) KARKAMIŠ A1a §§ 17–18, cf. Hawkins 2000: I 88  
 ARHA-pa-wa/i kwa/i-i (PES)\*a-wa/i-i-ha \*a-wa/i-mu za-a-zi DEUS-ni-zi |ta-ni-mi-zi  
 |CUM-ni ARHA PES-wa/i-ta  
 ahha=ba=wa kwi awiha a=wa=mu zanzi massaninzi  
 forth=but=PTCL when come.1SG.PRT PTCL=PTCL=I.DAT this.NOM.PL.C god.NOM.PL  
 taniminzi anni ahha awinta  
 all.NOM.PL.C near forth come.3PL.PRT  
 ‘When I came back all these gods came back **along with** me.’<sup>11</sup>
- (8) KARKAMIŠ A1a § 26–27, Hawkins 2000: I 89  
 za-ha-wa/i |(FORTIS)mu-wa/i-ta-li-na (DEUS)TONITRUS-za-na |CRUS-nu-wa/i-ha |  
 CUM-ha-wa/i-tú za-a-zi DEUS-ni-zi-i |CRUS-nu-wa/i-ha  
 zan=ha=wa muwattallin Tarhunzan tanuwahha  
 this.ACC.SG.C=and=PTCL powerful.ACC.SG.C Tarhunt.ACC.SG erect.1SG.PRT  
 anni=ha=wa=du zanzi massaninzi tanuwahha  
 near=and=PTCL=he.DAT this.ACC.PL.C god.ACC.PL erect.1SG.PRT  
 ‘I erected this powerful Tarhunt, and **next** to him I erected these gods.’

Thus one can conclude that the local adverb CUM-*ni/a* was prototypically used for adding an extra valence to the verb argument structure. Furthermore, the comparison with Greek increases the likelihood that this was one of the main functions of \**en(i)* already in the protolanguage. Although the translation of CUM-*ni/a* as ‘with’, which historically underlies the choice of <CUM> for L58, may be appropriate in some cases, there are no reasons to think that it was either more frequent or more basic in comparison with ‘to’ or ‘for’. In an additional group of contexts referring to commercial transactions CUM-*ni* can be best translated as ‘from’ (CEKKE § 6, Hawkins 2000: I 145; TUNP 1 §§ 1–2, Hawkins 2000: I 155; ASSUR letter f+g § 34, Hawkins 2000: II 537). Such an embarrassment of the choice implies that there is little point in attempting to replace the logogram <CUM> with \*\*<APUD>, \*\*<PER>, \*\*<AD> or anything of the sort, since each of these values would fit a limited group of contexts and be suboptimal for the rest. But it makes one wonder whether the Luwian language had additional means of specifying the meaning of the valence-increasing preverb /an(ni)/ with such a broad range of meanings.

11 Hawkins 2000 consistently translates ARHA as ‘forth’ when used with motion verbs, but the contextual analysis makes it clear that if this local adverb is combined with inherently centripetal verbs, it invariably refers to the distant location of the motion starting point. Thus KARKAMIŠ A4b § 2 refers to hostilities that came from the distant land of Sura (Hawkins 2000: I 80), while ANDAVAL §§ 3–4 marks the spot where the author of the inscription provides summer pastures for horses upon bringing them from unspecified valleys (Hawkins 2000: II 515). The translation ‘back’ is appropriate in those instances where the deictic center of the situation is habitually associated with its protagonist, as is the case of the ruler Katuwa returning to his home town of Carchemish after a long campaign in (7). Note that the local adverb *arḫa* can have the same function in Hittite with centripetal verbs, e. g. KBo 3.4 ii 54 1-aš=ma=kan <sup>m</sup>T[apala]zunauliš arunaz arḫa uet ‘T. came back from the sea alone’.

## 5 Local Adverbs of Set II: Luwian Cognates

We submit that the Luwian local adverbs *parr-an(ni)* ‘in front, before’, *app-an(ni)* ‘behind’ and *tawiy-an(ni)* ‘toward, against’ represent compounds with *an(ni)* < \**én(i)* as the second element. The first two of these adverbs are cognate with Hitt. *pēr-an* ‘in front, before’ and *āpp-an* ‘behind’ respectively. The third one is derived from Luwian *taw(i)*- ‘eye’ and lacks lexical cognates in Hittite but represents the functional counterpart of Hitt. *menahh-anda* ‘opposite, against’, which is in turn cognate with Hitt. *meni-* ‘face’ (Nikolaev 2010). A number of reasons to regard Hitt. *pēr-an* and *āpp-an* as historical compounds have already been mentioned in the preceding section. But in the instance of Hittite one had to rely on indirect arguments, because the reflex of \**en(i)* is not attested in this language as a local adverb, while the suffix *-an* can be formally interpreted in a variety of ways. The situation in Luwian is more straightforward, since the synchronic variation between the forms ending in *-an* and *-anni* is attested in hieroglyphic transmission not only with the base adverb CUM-*ni/a* but also with its compounds. The examples below illustrate the contrast between VERSUS-*ia-ni* = /tawiyanni/ and VERSUS-*ia-na* = /tawiyān/ (9–10), PRAE-*ni* = /parranni/ and PRAE-*na* = /parrān/ (11–12), and POST-*ni* = /appanni/ vs. POST-*na* = /appān/ (13–14).

- (9) KARKAMIŠ A11b+c § 20, cf. Hawkins 2000: I 104  
 |NEG<sub>2</sub>-pa-wa/i-sa |za-ti-ia-za (DOMUS.SUPER)ha+ra/i-sà-tá-na-za MALUS-la/i-ti-i-'  
 |VERSUS-ia-ni [PES]-wa/i-ti  
 niba=wa=as            zattiyanz    haristananz            attuwaladi tawiyanni  
 or=PTCL=he.NOM.C this.DAT.PL upper.room.DAT.PL evil.ABL    against  
 awidi  
 come.3SG.PRS  
 ‘Or (if) he comes with malice against these upper rooms’
- (10) KARKAMIŠ A31+ § 10, cf. Hawkins 2000: I 142  
 za-ti-pa-wa/i DEUS-ni kwa/i-sa MALUS-la/i-ti VERSUS-ia-na PES<sub>2</sub>-si-ti  
 zatti=ba=wa            massani    kwis            attuwaladi tawiyān  
 this.DAT.SG=but=PTCL god.DAT.SG which.NOM.SG.C evil.INSTR    against  
 wisidi  
 emerge.3SG.PRS  
 ‘Who(ever) rises up with malice against this god’
- (11) KARKAMIŠ A31+ § 11, cf. Hawkins 2000: I 142  
 ni-pa-wa/i+ra/i “CRUS.CRUS”-i kwa/i-ti PRAE-ni  
 ni=ba=wa=ada            niyazzai    kwatti            parranni  
 or=but=PTCL=it.NOM.N pass.3SG.PRS which.DAT.SG before  
 ‘Or if it passes down to someone.’
- (12) KARKAMIŠ A6 § 25, cf. Hawkins 2000: I 125  
 za-sa-pa-wa/i (MENSA.SOLIUM)á-sa-sa (CRUS+CRUS)ni-za-ia |kwa/i-a-ti kwa/i-ti-i-  
 ha REX-ti |PRAE-na

zas=ba=wa                      asas                      nizzaya                      kwatti  
 this.NOM.SG.C=but=PTCL seat.NOM.SG pass.3SG.PRS which.DAT.SG  
 kwatti=ha                      hantawatti                      parran  
 which.DAT.SG=and king.DAT.SG before

‘To which(ever) king this throne passes down’

- (13) KARKAMIŠ 11 *b+c* § 33, cf. Hawkins 2000: I 104

“LIGNUM”-sa-pa-wa/i-mu-tá-’ |kwa/i-a-za za-a-ti-ia-za |(DOMUS.SUPER)ha+ra/i-  
 sà-tá-na-za POST-ni |PES-wa/i-tà

tarusa=ba=wa=mu=tta                      kwanza zattiyanz                      haristananz  
 wood.NOM.SG=but=PTCL=I.DAT=PTCL while                      this.DAT.PL upper.room.DAT.PL  
 appanni                      awida  
 behind/after come.3SG.PRT

‘When the wood for these upper rooms became available to me’

- (14) KAYSERİ § 11, cf. Hawkins 2000: II 473

wá/i-tá-’ |(DEUS)ku+AVIS-pa-pa-sa-’ |POST-na |FORTIS-wa/i-i

wa=an=ta                      Kubabas                      appan                      muwai  
 PTCL=he.ACC.C=PTCL Kubaba.NOM.SG behind/after oppress.3SG.PRS

‘And Kubaba will oppress him from behind/afterwards.’

The variation between the graphemes <na> and <ni> at the end of the same forms does not constitute a trivial feature of the Anatolian hieroglyphic script. For example, the accusatives ending in <na> do not display synchronic variants ending in <ni>, and the datives ending in <ni> normally do not display synchronic variants ending in <na>.<sup>12</sup> Therefore the variation between <na> and <ni>/<ní> at the end of the local adverbs under discussion must reflect phonetic reality, which sets apart *an(ni)*, *tawiyān(ni)*, *parrān(ni)* and *appān(ni)* from certain other local adverbs, such as *antan* ‘inside’ (15) or *annan* ‘under’ (16). Furthermore, it seems that *appan* never takes the allomorph *appān(ni)* when it is used in word-initial position with the meaning ‘then, afterwards’, as in (17).

- (15) TELL AHMAR 6 § 2, cf. Hawkins 2006: 12

|á-ta-na |(PES<sub>2</sub>)tara/i-za-mi-i-sa (DEUS)SOL-sa

antan tarzammis                      Tiwaz  
 inside turned.NOM.SG.C Sun-god.NOM.SG

‘...benevolently inclined? Sun-god...’

- (16) ALEPPO 3 § 4, cf. Hawkins 2000: II 562

[m]u-pa-[w]a/i-[n]a |SUB-na-tà-wa/i-na SUB-na-a-na-’ |i-zi-i-ha

<sup>12</sup> The only prominent specialist in Anatolian hieroglyphs who continues to assume that the sign L411, now commonly read as <na> has the value <na/ni> is Massimo Poetto. One can understand how the difficulties with interpreting the structure of local adverbs could bring about such a transliteration, but the attempts to apply it across the board tend to be counterproductive. For a recent example of how its application led to an erroneous segmentation of a Luwian text, see Sasseville and Yakubovich 2016.



amu=ba=wa=an                      annadawin annan izzihā  
 I.NOM=but=PTCL=it.ACC.C “at-eye”      under make.1SG.PRT

‘I subjugated it on the spot.’<sup>13</sup>

- (17) KARKAMIŠ A6 § 31, cf. Hawkins 2000: I 125

á-pa-pa-wa/i-’ (DEUS)ni-ka+ra/i-wa/i-sá CANIS-ni-i-zi á-pa-si-na |CAPUT-hi-na  
 |ARHA EDERE-tú

appan=ba=wa Nikkarawas(sa) zuwaninzi abassin                      harmahin ahha  
 after=but=PTCL Nikkarawa.GEN dog.NOM.PL that.POSS-ACC.SG.C head.ACC.SG away  
 adantu  
 eat.3PL.IMP

‘Then let the dogs of Nikkarawa eat up his head.’<sup>14</sup>

The formal difference between the two subgroups of adverbs has a historical explanation. Luw. *antan* ‘in’ represents a lexical cognate of Hitt. *andan* ‘within, inside’ and there are reasons to reconstruct it as *\*en-dom*, following Dunkel 2014: 159. Luw. *appan* in its temporal meaning ‘then, afterwards’ represents a perfect phonetic and semantic match of the Young Avestan *apqm* ‘afterwards’. Whatever be the precise reconstruction of this temporal adverb, it is unlikely to represent a compound in *\*en(i)*, because the Avestan form unambiguously points to the final *-m* preceded by a long vowel. It stands to reason that the local adverb *appan(ni)* and temporal adverb *appan* could still be felt as synchronically distinct forms in Iron Age Luwian, while Hitt. *āppan* ‘behind, after’ represents a historical contamination of two originally distinct adverbs.<sup>15</sup> Luw. *annan* ‘under’ is cognate with Lyc. *ēnē* ‘id.’ but does not appear to have direct parallels outside the Luwic subgroup. In purely formal terms, the Luwian and Lycian lexemes could be reconstructed as *\*en-en*, but such a reduplicated formation would be unparalleled among the Anatolian local adverbs and the functional motivation behind its derivation would remain utterly unclear. It is more economical to assume that *annan* was secondarily derived from the Luwic archetype of */an(ni)/* by analogy with the archetypes of *andan* and *appan*.

- 13 The translation of the hapax SUB-*na-tā-wa/i-na* as ‘on the spot’ is conjectural. Hawkins (loc. cit.) interprets this form as ‘subordinate’ (acc.sg.c), but the morpheme SUB-*na-* cannot be equated with *annan* ‘under’, since the addition of such a prefix would preclude the lenition of the following dental stop. On the other hand, the use of the <tā> sign clearly suggests the lenition (see Rieken 2008 for the general rule). Therefore we tentatively assume that the first morpheme of the form in question is */anna/*, a segment related to the benefactive operator */an(ni)/*. The same morpheme is otherwise clearly attested in the Hittite adjective *anna-wali*, *anna-uli* ‘of the same rank’, which was borrowed from Luwian (Yakubovich 2010a: 380, fn. 9). Presumably, the choice of SUB-*na-*, as opposed to CUM-*na-*, for rendering */anna/* had something to do with the following word SUB-*na-a-na-*’ = */annan/* ‘under’. The second morpheme of the form under discussion is hard to separate from Luw. *taw(i)-* ‘eye’.
- 14 Differently Hawkins (loc. cit.), who prefers to regard the initial *á-pa-* as a deictic pronominal form, which implies the translation ‘Let the dogs of Nikarawa eat up him, (namely) his head’. Note, however, that the translation ‘hereafter’ imposes itself for the clause-initial POST-*na* in KARATEPE § 74 (Hawkins 2000: I 58). On the other hand, the possibility of syllabic spelling for the adverb */appan/* is confirmed by the variation of *á-pa-na* and POST-*na* in the parallel passages SULTANHAN § 32 (Hawkins 2000: II 466) and KAYSERİ § 11 = (14). In view of these facts, there is no need to retain the complicated interpretation involving a double expression of the possessor in (17).
- 15 A complication of this analysis comes from the Lycian adverb *epñ*, which is commonly translated as ‘after(wards)’, or something similar (Neumann 2007: 61). Melchert (pers. comm.) justly points out that Lyc. *epñ* cannot represent a lexical cognate of Av. *apqm* < *\*apām*, since it does not display effects of *a*-umlaut. It is, however, to be noted that at least from the syntactic viewpoint Lyc. *epñ* resembles the Luwian local adverb *appan(ni)* rather than the temporal adverb *appan*, because it usually occurs in preverbal position and can take the dative complement. Furthermore, so far as we can see, the local meaning ‘beside’ fits the available contexts featuring Lyc. *epñ* at least as well as the temporal meaning. The question, of course, requires further study.

The plausibility of analogical explanations, such as the one mentioned immediately above, naturally depends on whether the Luwian adverbs in *-an* display some common properties that separate them from the Luwian adverbs in *-an(ni)*. The scrutiny of Iron Age Luwian texts confirms the synchronic distinction between the two groups. Table 3 below summarizes the syntactic classification of local adverbs accomplished by Sergey Boroday as a part of the preparation of his doctoral thesis (Boroday forthcoming). Type I encompasses clauses with local adverbs but no indirect or oblique objects. Type II illustrates the classical benefactive derivation, where the modification of the base verb by the local adverb triggers the addition of a new argument, usually standing in the dative-locative but sometimes in the ablative-instrumental case. Type III reflects the cases where the addition of a local adverb modifies the relationship between the base verb and indirect or oblique objects that are already present in its argument structure.

Table 3: Interaction of predicates and local adverbs in Luwian

ADVERB	Type I	Type II	Type III	Unclear	Σ
<i>ahha</i>	137	23	—	4	164
CUM- <i>ni/a</i>	—	31	10	7	48
<i>annan</i>	2	5	—	10	17
<i>anta</i>	28	19	1	20	68
<i>antan</i>	3	—	—	—	3
<i>appan(ni)</i>	7	5	12	—	24
<i>pari</i>	11	5	—	4	20
<i>parran(ni)</i>	1	19	4	4	28
<i>sarra</i>	8	16	—	—	24
<i>tawiyān(ni)</i>	—	8	7	3	18
<i>zanta</i>	26	4	1	—	31

It is easy to see from Table 3 that the adverb CUM-*ni/a* = */an(ni)/* and the related compound forms *parr-an(ni)* ‘in front, before’ and *tawiy-an(ni)* ‘toward, against’ lean toward the valence-increasing function and virtually always share clauses with oblique arguments. The last feature makes them similar to the Hittite adverbs of Set II, which are frequently classified as postpositions because they tend to form syntactic constituents with dative complements (or genitive complements in Old Hittite).<sup>16</sup> The adverbs *ahha* ‘away’, *anta* ‘into’, *pari* ‘out, forth’, and *zanta* ‘down’ which are most commonly attached to a predicate without affecting clause argument structure, occupy the opposite end of the continuum. They are cognate with respectively *arḫa* ‘away’, *anda* ‘into’, *parā* ‘out, forth’, and *katta* ‘down’ in Hittite, while their syntactic behavior is likewise similar to that of the Hittite Set I. Interestingly enough, the few attestations of the local adverb *antan* ‘in’ also squarely place it within this group. At

16 The formal distinction between preverbs and postpositions in Hittite cannot be discussed here in any detail. It suffices to mention that word order traditionally played no less important role than clause argument structure in assigning specific functions to the Hittite local adverbs (Tjerkstra 1999: 2–10). The practical work on the local adverbs in Luwian has, however, demonstrated that the observation of valence modification yields here more straightforward results for their classification than the study of word order. Note, in particular, that the contrast between the preverb *appa* in *nu appa tienzi* ‘they step back’ and the postposition *appa* in <sup>LÚ.MEŠ</sup>MEŠEDI-*an appan tienzi* ‘they step behind the body-guard men’, which was alluded for Hittite in Section 1, fits naturally with the interpretation of the Luwian data offered here. This issue will be discussed in more detail in Boroday forthcoming.

this point, however, one should remember that its Hittite cognate *andan* < \**en-dom* ‘inside’ likewise has syntactically more in common with Set I than Set II, as discussed above in Section 2.

Certain other adverbs appear to display intermediate properties, showing moderate predilection for constructions with indirect objects. This is an expected result in the instance of Iron Age Luwian *sarra* ‘up, above, over’, which reflects the contamination of *sarra* ‘on’, functionally equivalent to Hitt. *šarā*, and *sarri* ‘up, above’, cognate with Hitt. *šer*. These two lexemes are still distinguishable in the Luwian cuneiform texts of the Bronze Age (Melchert 1993: 189, 190). The instance of *appan(ni)* may reflect a similar situation, except that the conflation between the local adverb *appan(ni)* and temporal adverb *appan* is more likely to have occurred in the eye of the beholder. It is simply too difficult to draw a sharp boundary between the two forms in each and every case (cf. example 14 above), although the speakers of Luwian were arguably able to do it. It appears likely that *appan(ni)* ‘behind’ was syntactically similar to the other compounds in *-an(ni)*, while the temporal adverb *appan* was most commonly used in the meaning ‘then, afterwards’ and thus normally did not trigger additional indirect objects. Finally, in the instance of *annan* ‘under’ one is tempted to speculate that its syntactic behavior represents a compromise between the inherently benefactive semantics of its root and the influence of *antan*, *appan*. Such speculations, however, may prove to be pointless due to a large proportion of unclear cases involving this adverb.

Summing up, for all the scarcity of data one can observe that the syntactic properties of Luwian compounds in *-an(ni)* are different from those of local adverbs in *-an*, but each of the two groups, and particularly the first one, appear to display syntactic homogeneity. Two of the three adverbs in *-an* have lexical cognates in non-Anatolian Indo-European, but the formations in *-an(ni)* have direct parallels only at the Anatolian level, and therefore must be regarded as Anatolian innovations. In synchronic functional terms, the *-an(ni)* compounds represent ways of specifying a fairly broad meaning of the benefactive operator CUM-*ni/a=*/*an(ni)*/.

In conclusion, one should stress an important dialectological limitation of the proposed analysis. The synchronic variation in the second morpheme of the local adverbs *app-an(ni)*, *parr-an(ni)*, and *tawiy-an(ni)* is attested only in the Luwian texts of the first millennium BC, which are all attested in hieroglyphic transmission. By contrast, the Luwian cuneiform texts of the second millennium BC consistently display the shorter variants *āppan*, *parran*, and *tāwīyan* (Melchert 1993: 21, 166, 225). As long as the Anatolian hieroglyphic script remained imperfectly understood and the dialectal divisions within Luwian remained unknown, it was logical to base one’s conclusions on the earlier and more transparent data and to ignore hieroglyphic evidence as reflecting no more than graphic idiosyncrasies. But the recent years brought about the realization that the dialect of the Iron Age Luwian inscriptions does not directly continue the dialect of Kizzuwatna, which is largely reflected in the available Luwian cuneiform texts, but rather the dialect of Hattusa (Yakubovich 2010b: 15–73, but cf. already Melchert 2003: 172–174). The corpus of Hattusa Luwian (also known as Empire Luwian) mostly consists of foreign words in Hittite texts, which do not include local adverbs, and the early hieroglyphic inscriptions, where they are rarely spelled with phonetic complements. In the absence of compelling evidence to the contrary, one may surmise that the variants *parr-anni* ‘in front, before’, *app-anni* ‘behind’ and *tawiy-anni* ‘toward, against’ reflect an archaism of Hattusa Luwian, which was eliminated in the dialect of Kizzuwatna and perhaps in some other Luwian dialects, which generalized the shorter variants of the same adverbs.

The proposed solution would, of course, be gratuitous unless one could point to the peculiarities of the Kizzuwatna dialect that could trigger the proposed development. It turns

out that its independent innovation is the elimination of the local adverb *\*an(ni)*, which is preserved only in *\*anni a- (di) > anni- (di)* ‘to cause’ and was presumably perceived there as part of the verbal root.<sup>17</sup> This loss, which explains the difficulties of identifying the reading of CUM-*na/ni* in modern scholarship, must also have obfuscated the structure of the *-an(ni)* compounds for the speakers of Kizzuwatna Luwian. Judging by the evidence of the Iron Age hieroglyphic texts, the adverb CUM-*ni* = /anni/ occurs more than ten times more frequently than the variant CUM-*na* = /an/ (or /anna/?), but the apocopated variants of the *-an(ni)* compounds are more frequent in accordance with the general tendency of irregular shortening in compound forms (see lately Hackstein 2014). In the absence of paradigmatic support from the base adverb, the historical compounds in *-an(ni)* must have generalized the shorter variant in Kizzuwatna Luwian. This was all the easier to accomplish given the existence of *ānnan* ‘below, under’ and possibly *andan* ‘inside’ in the same dialect, which may have provided a starting point for analogical leveling.

## 6 Further Cognates in Lycian and Lydian

Unlike the Luwian evidence, which is crucial for justifying the proposed origin of Hittite Set II, the Lycian and Lydian data can only play a subsidiary role in this endeavor, primarily because they are themselves in need of clarification. Nevertheless, it seems appropriate to discuss them here as a modest contribution to the comparative morphology of the respective languages.

The close functional counterpart of Luwian *tawiy-an(ni)* is Lyc. (A) *ñtewē* ‘opposite, against’ (Melchert 2004: 46). There is a common agreement that the element *-tew-* in this adverb is the morpheme for ‘eye’, and thus it is also cognate with *tawiy-an(ni)* at the root level, but what precedes and follows *-tew-* requires explanations. Eichner (1985: 19, en. 26) explained the initial *ñ-* as a preposition, thus presumably implying that it is a cognate of IE *\*en(i)*. The development *\*en- > ñ- / \_C* in the history of Lycian, whatever be its additional licensing conditions, can be independently illustrated through Lyc. *ñte* ‘into’ vs. Lat. *endo*, Hitt. *anda* ‘into’.

The status of the final *-ē* in *ñ-tew-ē* is a more controversial problem, whose solution can benefit directly from the main argument of this paper. The traditional view, upheld in both Eichner 1985 and Melchert 2004, interprets this Lycian morpheme as an accusative ending. This would imply its reconstruction as *\*-om*, but KUB 35.49 iv 9 *da-a-u-i-iš* (nom.sg.) pleads for the mutation-stem *taw(i)-* in Luwian. Such a mismatch undermines the traditional interpretation, since we are not aware of other cases where a Luwian mutation stem would correspond to a simple thematic stem in Lycian. Furthermore, the Luwian parallels support the hypothesis that *ñ-* was combined with the dative and not the accusative form, while Lyc. *tew-ēte* ‘opposite’ (TL 44.53) provides evidence for the compositionality of *tew-* with an adverb as the second element. Therefore we would like to consider a morphological analysis

17 Yakubovich (2010a) argued that Kizzuwatna Luwian *anni- (di)* ‘to cause’ can be further compared with Hitt. *aniye/a-<sup>mi</sup>* ‘to do’, Palaic *ani-<sup>(ti)</sup>* ‘to cause’ and Lycian *f-ēn-ani- / kat-avi-* ‘to make’. Taken at face value, the combination of the two etymologies implies that the fusion of *\*-eni-* and the verb ‘to do’ independently occurred in Hittite, Palaic, Lydian, and Kizzuwatna Luwian, but failed to be implemented in Hattusa Luwian. While not impossible, such a scenario is admittedly rather complicated. Therefore it is worth being stressed that the comparison between Late Luwian CUM-*na/i a- (di)* and Kizzuwatna Luwian *anni- (di)* ‘to cause’ must take precedence over the extra-Luwian etymologies of *anni- (di)*. This not only follows from the general principle of sequential reconstruction but is also due to the specific similarities between the dialectal Luwian forms: the *di*-conjugation and the reduplication of /n/ in *anni- (di)* to be explained by Čop’s Law. Even if better etymologies for Hitt. *aniye/a-<sup>mi</sup>* ‘to do’ and/or other Anatolian forms are found in the future, this need not affect the inner-Luwian reconstruction.

{*ñ-tewe-ẽ*}, where *tewe* is the dat.pl form of the noun for ‘eye’, while *ẽ* (or something phonetically similar) is the reflex of the local adverb \**en*. The interpretation {*ñ-tewi-ẽ*} featuring the dat.sg form is perhaps more difficult on formal grounds, since one would expect \*\**ñtewijẽ*, but an allegro reduction in a compound adverb might be considered as a possible explanation (cf. Eichner 1985: 19, n. 26). Finally, the adverb *ẽ* may have been attached to an endless locative \**tew*. Presumably \**tewẽ* became *ñtewẽ* at the point when the morphological structure of the original compound adverb was no longer transparent. As a typological parallel, one can consider the Spanish forms such as *con-mi-go* ‘with me’, *con-ti-go* ‘with you’ vs. Lat. *mẽ-cum* ‘with me’, *tẽ-cum* ‘with you’.

Among the parallel instances of Lycian local adverbs in *-ẽ*, which lend themselves to an explanation as compounds in \**-en(i)*, most promising is the case of *pddẽ* ‘in front, before’, the functional equivalent of Hitt. *pẽran* and Luw. *parran(ni)*. Schürr (2010) affirms its traditional meaning in the face of persistent but contextually unfounded attempts to redefine it as a nominal form ‘place’ (for the history of the question see Neumann 2007: 260–261). The structural parallelism between Lyc. *ñtewẽ* and *pddẽ* enhances the likelihood that the latter adverb is also derived from a body part, while the comparison with Lyc. *ped(e)-* ‘foot’ is formally unproblematic (Schürr 2007: 122, fn. 22). Since the derivation of adverbs by compounding was still productive in the history of Lycian, as the first morpheme of *ñ-tew-ẽ* appears to indicate, one must accept the likelihood that *pdd-ẽ* was formed on the model of \**-tew-ẽ*. One must also mention a possibility that it directly replaced a cognate of Hitt. *pẽran* and the change could be mediated by the phonological similarity of the two forms, although such a hypothesis is hardly provable.

On the other hand, Lycian also exhibits other adverbs with nasal suffixes, which cannot be reduced to combinations with \**en(i)*. This holds, for example, for Lyc. *ẽnẽ* ‘under’, which is obviously connected with Luw. *annan* ‘id.’ (Melchert 2004: 20). As discussed in the previous section, the form *annan* can be best explained as an innovation, but now one can specify that it probably occurred at the Proto-Luwic stage. This does not, however, affect the conclusion that new adverbs could not be formed as a compound with \**en(i)*. One has to conclude that there is no formal class marking Lycian local adverbs of compound origin, and the decision is to be taken on the case-to-case basis, primarily on the grounds of etymological arguments.

Turning to the Lydian data, it is appropriate to dwell on the morpheme *ẽn*, identified as a likely cognate of Luw. CUM-*ni/a* = /an(ni)/ in Goedegebuure 2010. It occurs once as a postposition in a combination *širmał ẽn* (12.7, Gusmani 1964: 255), but there are several dozens of attestations where it functions as a prefix (Yakubovich 2005: 77). The phonological shape of *ẽn* prompts the reconstruction of its immediate archetype \**eni* rather than \**en* (Melchert 1994: 365). A syntactic feature shared by Luw. CUM-*na/ni* and Lyd. *ẽn* is the tendency of both forms to attach themselves to the predicates governing indirect objects. Two better understood contexts where the Lydian prefix under discussion respectively co-occurs with *dativus incommodi* and *dativus commodi* are given below as an illustration. The only instance where the prefix *ẽn* demonstrably modifies a predicate lacking an indirect object is 3sg.prt *f-ẽn-cal* (50.4, Gusmani 1964: 267).

(18) 4.1,3–5, cf. Gusmani 1964: 252

ak=mλ=t	qiš	f-ẽn-šłipid	... fak=mλ	Sāntas
PTCL=he.DAT=PTCL	who.NOM.SG.C	harm.3SG.PRS	PTCL=he.DAT	Santa.NOM.SG
Kufav=k	Marivda=k	ẽn-šłipp[i]d		
Kufava.NOM.SG=and	Marivda.NOM.SG=and	harm.3SG.PRS		

‘Whoever causes it harm, ... let Santa, Kufava and Marivda cause him harm.’

- (19) 14.16, cf. Gusmani 1964: 257

fa=mλ=ad                      taadas                      ěn-trol  
 PTCL=he.DAT=it.ACC.N father.NOM.SG provide.3SG.PRT

‘(His) father provided it for him.’

The identification of historical compounds with the adverb *ẽn* as the second element is complicated by the pervasive process of syncope in Lydian (Melchert 1994: 373–376). In particular, the reduction of unstressed short vowels in final syllables resulted in the situation when the reflexes of adverbs in *\*-en* and accusatives in *\*-om* would merge into *-v* in the history of this language. Given that our understanding of the Lydian language remains very imperfect, it is difficult to say in many instances based on context whether a given form is an adverb or an accusative noun. Nevertheless, there are two instances where the reconstruction of compound adverbs can be proposed on the basis of etymological analysis.

The idea that the Lydian prefixes *kan-* and *kat-* are etymologically related is in itself not new despite little agreement on details (Gusmani 1964: 142). Later it was augmented by the insight that the alternation between the verbal stems *f-ẽn-ca* and *kan-ca-* or *ẽn-tro-* and *kan-tro-* supports the etymological connection between *kan-* and *ẽn-* (thus implicitly Yakubovich 2005: 77). Furthermore, the fact that the prefix *kan-* is synchronically attested only before stems beginning with dental consonants facilitates the assumption of the historical assimilation *\*-katn > kan* in complex consonant clusters. This opens a possibility of a genetic relationship between Lydian *kan-* and the Hittite local adverb *kattan* ‘below’, a member of Set II. Unlike Hitt. *katta* ‘down’ and the Lydian prefix *kat-*, which are further compared with Gk. *κατά* ‘down’ and thus reconstructed for the Indo-Anatolian level, Hitt. *kattan* does not appear to display extra-Anatolian lexical cognates (Dunkel 2014: 420). It is, therefore, tempting to propose that the Lydian prefix *kan-* goes back to (virtual) *\*kmt-eni*, which was formed on the same model as the other compounds in *\*en(i)*. Under such an interpretation, Lyd. *kan-* is formally comparable with Hitt. *kattan*, although here we are probably dealing with homoplasy rather than shared innovation, since Hitt. *kattan* is not attested in the Old Script texts (Melchert, pers. comm.).

The second case concerns the form *šawv*, which is traditionally taken as a derivative of the verbal stem *šaw-* ‘to watch’ (Gusmani 1964: 192). Melchert (1992: 40) offered the analysis of *šaw-* as a cognate of PIE *\*sekʷ-* ‘see’ elaborating on the earlier semantic analysis of Carruba and Gusmani. It is not the place to go into the phonological details of how this root is now reconstructed for Indo-European, but there is a consensus that its Anatolian reflexes include not only Hitt. *šakui-*, *šakuwa-* ‘eye’ and *šakuwaya-* ‘to see’, but also Luw. *taw(i)-* ‘eye’ and its derivative *tawijan(ni)* ‘toward, against’, as well as Lyc. (A) *ñtewē* ‘opposite, against’. From the semantic viewpoint, the two occurrences of *šawv* in Lydian can be both analyzed as instances of adpositions governing dative cases nouns (11.3 *šawv wratuλ* and 22.8 *mλimnav šawv sfardētav*). In neither of the two cases the analysis of *šawv* as a direct object appears promising: the first phrase occurs in a clause that already contains another direct object, while the second one features the medio-passive verbal form *cēntλ*, which speaks rather for its intransitive character. Therefore one can tentatively suggest that Lyd. *šawv* represents an approximate functional equivalent of its Luwian and cognates, respectively *tawijan(ni)* and *ñtewē*. The Lycian form is particularly compatible to *šawv* with regard to vocalism, although the possibility of independent restructuring in the Lydian and Lycian adverbs is not to be ruled out.

## 7 Conclusions

The comparative analysis of Hittite local adverbs has confirmed the hypothesis that the difference between Set I and Set II lies not only in their synchronic properties but also in their morphological prehistory. While the majority of adverbs belonging to Set I have assured or likely lexical cognates at the Indo-European level, the core of Set II consists of the compounds that deploy the inherited material but were formed after the separation of Anatolian from Indo-European. These are *pēran* ‘in front, before’ ~ Luw. *parran(ni)*, *āppan* ‘behind’ ~ Luw. *appan(ni)*, and *kattan* ‘below’ ~ Lyd. *kan-*. The second element of these compounds was the reflex of PIE *\*-en(i)*, which is traditionally translated as ‘in’ but also must have functioned as the generalized benefactive operator. At the same time, certain other Hittite forms belonging to Set II lend themselves to a different reconstruction. Thus Hitt. *andan* ‘within, inside’ is cognate with Gk. *ἐνδόν* ‘inside’ and goes back to a prepositional compound *\*en-dom*, while *āppan* ‘after’ is possibly cognate with Avestan *apqm* ‘afterwards’. The syntactic peculiarities of Set II and even those of individual forms belonging to this group find adequate explanations based on the postulated peculiarities of its historical morphology.

On the methodological level, the present paper bears witness to the importance of adducing the data of Anatolian languages other than Hittite, and even their specific dialects, for the purpose of tackling controversial problems of Hittite historical morphology. The evolution of Hittite local adverbs has been addressed thus far either from the viewpoint of internal reconstruction or under the prism of Indo-European comparison. Although the combination of these approaches appears to be sufficient in order to give preference to the solution offered here, once it is on the table, it does not supply an algorithmic way of arriving at such a solution. This probably explains why it had not been offered up to now, except for its cursory presentation in Oettinger 2016. By contrast, the Iron Age Luwian texts, where the simple adverb CUM-ni/a = */an(ni)/* shares the optional *-ni* extension with the compound adverbs *parran(ni)*, *appan(ni)*, and *tawīyan(ni)*, simplify the whole issue to a great extent, relegating it to the domain of synchronic morphological analysis. The prerequisites for recovering these data and appreciating their relevance for Indo-European Studies were respectively our improved understanding of the Anatolian hieroglyphic script and the development of Luwian dialectology.

## Abbreviations

EWAia Manfred Mayrhofer (1986–2001). *Etymologisches Wörterbuch des Altindoarischen*. 3 vols. Heidelberg: Winter.

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