

# **The development of local particles and adverbs in Anatolian as a grammaticalization process**

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## 0. Introduction\*

The Anatolian languages have a special set of clitics, commonly called local particles, whose origin and function have long been a major puzzle for scholars in the field. The local particles are P2 clitics, i.e. they occur after the first accented word in the sentence, regardless of its function or category. In second position, they follow all other P2 clitics, such as connectives and pronouns.<sup>1</sup> Very often, at least in Old Hittite, they co-occur with some kind of local expression. Examples of local particles are *-an* in (1), from Hittite, *-ta* in (2), from Palaic, and *-ta* in (3), from Cuneiform Luwian:

- (1) *ug= an namma anda [p]aimi*  
1SG-NOM PTC besides into go:1SG-PRES  
“I go inside again”, *StBoT* 8, ii 45 (=Otten & Souček, 1969);
- (2) *hapnas= ta ni tetanza*  
river:NOM-SG-C PTC NEG ?:PART-NOM-SG-C  
“the river is not ...-ed”, *StBoT* 10, p. 22, ll. 11-12 (=Carruba, 1970);
- (3) *zas= pa= ta kuwatin zammitatis<sup>NA4</sup>harati auimmis*  
this:NOM CONN PTC as flour:NOM grindstone:ABL come:PART-NOM  
*auiddu= pa= as= ta malhassassis EN-as haratnati waskulimmati*  
come:IMPER-3SG CONN 3SG-NOM PTC ritual:ADJ-NOM lord:NOM offence:ABL sinful:ABL  
“as this flour has come from the grindstone, so may he, the Lord of the ritual (i.e. the person for whom the ritual is performed), come from sinful offense”, *StBoT* 30, p. 129 ll. 22-24 (=Starke, 1985).

One problem with the particles is that their Indo-European connection is far from clear, since, as a word class, they have no direct correspondent in any of the other Indo-European languages. Many studies have been devoted to the local particles, especially in Hittite, since understanding their function in the other languages is even harder, owing to the fragmentary nature of the attestations. The investigation of written records shows that the particles underwent semantic change during the

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<sup>1</sup> On the position of clitics in the initial chain, see Luraghi (1990a, b) and (1998).

history of Hittite: they originally had a local meaning,<sup>2</sup> which became ‘more general’ with the course of time, eventually becoming, according to some scholars, partly aspectual;<sup>3</sup> besides, the particles have been shown to have or have acquired at least in part an anaphoric function.<sup>4</sup>

In order to understand the evolution that one can observe in the written sources, one must also consider, in connection with the particles, another word class of Anatolian, i.e. the local adverbs, or, as they are sometimes called, place words. In her study of particles and adverbs, Boley (1989) has shown that the latter take over at the expense of the former in Middle Hittite: “... in O[ld] H[itite] it appears that the particles had much function which was later delegated to P[lace] W[ord]s. More specifically, the OH particles could express, or imply ... a general local sense, sometimes with apparent reference to a specific place or NP, or could complement a verb with some general local indication” (1989: 334). Boley also underlines that the evolution that she has analyzed in her book from Old to Middle Hittite “ultimately led to the strengthening of the PWs at the expense of the particles” (*ib.*).

In the present paper I would like to take a new look at the particles and their evolution, and to analyze their various properties in a typological perspective, in order to show how they can have originated from the preverbs/adpositions of Proto-Indo-European. Note that such a derivation has sometimes been suggested for some of the particles; in my opinion, however, it is not a matter of how one or another specific particle matches the phonological shape of a certain Indo-European preverb: rather, what I am going to suggest is that the particles as word class were once the functional equivalent of the preverbs/adpositions of the other languages, and that they had started to undergo a grammaticalization process,<sup>5</sup> already at a stage prior to the first written sources. As a

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<sup>2</sup> This may not be the case for *-kan*, see below § 3 and 5.

<sup>3</sup> See Josephson (1972) and especially (1995), where the author shows how the development from local to aspectual is a typical semantic change undergone by various preverbs in other Indo-European languages.

<sup>4</sup> See already Carruba (1964); Boley (forthcoming) uses the term *Rückbezug* for this function of the particles.

<sup>5</sup> Not everybody agrees on considering grammaticalization a process. In particular, according to Joseph (forthcoming), “grammaticalization is not a process but rather is merely a description of the outcome”. In the present paper I will follow the mainstream of research on grammaticalization, and consider it a process, according to the definition in

consequence, the particles lost their phonological autonomy and underwent semantic bleaching to an extent that they needed to be replaced in their original function by another word class. As we will see, this other word class is constituted by the local adverbs, which, starting with the Old Hittite period, can be shown to have developed the same function of the preverbs/adposition found in the other ancient Indo-European languages. This development can be described as a *minimal chain shift* in phonology, i.e. “a change in the position of two phonemes in which one moves away from an original position that is then occupied by the other” (Labov, 1994: 118).

Because the syntax of the local adverbs is more readily understood than that of the particles, I will start by describing the use of the former.

## 1. Local adverbs

Since Starke (1977) it is commonly recognized that local adverbs can be divided into two syntactically and semantically different sets in Old Hittite, static and dynamic. Dynamic adverbs typically occur as complements of motion verbs; static adverbs occur where no motion is implied. An exception is represented by a small set of verbs that denote motion, but focus on the attainment of a goal, such as *dai-*, ‘put’; such verbs take static adverbs as Direction expressions. Examples of the adverbs are the following:

- (4) *anda= kan halinas tessummius tarlipit suwamus 2-ki petumini*  
 into PTC clay:GEN bowl:ACC-PL *t.*:INSTR full:ACC-PL twice bring:1PL-PRES  
 “we bring inside twice the clay vessels full of *t.*”, *StBoT* 8 i 26’-27’ (=Otten & Souček, 1969);

- (5) *INA MU 3<sup>KAM</sup> LUGAL-us pait URU<sup>URU</sup> zalpan arahzanda uetet*  
 in year three king:NOM go:3SG-IND-PRET Z.:ACC around build:3SG-IND-PRET  
*MU 2<sup>KAM</sup> kattan esta*  
 year two down be:3SG-IND-PRET  
 “in the third year the king went and besieged the city of Zalpa. He was down there for two

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Kurylowicz (1965: 52), quoted below, § 6; see further Lehmann (1995), Hopper & Traugott (1993), and Heine *et al.* (1991).

years”, *StBoT* 17, rev. 10’-11’ (=Otten, 1973);

- (6) *ta= an hassas peran tianzi*  
CONN 3SG-ACC hearth:GEN in-front put:3SG-IND-PRET  
“they put it in front of the hearth”, *StBoT* 25 ii 8 (=Neu, 1980a).

In (4), the adverb *anda*, belonging to the dynamic set, is the third argument of the verb *petai-*, a three-place predicate, meaning ‘to carry’, ‘to bring’; in (5) the static adverbs *kattan* functions as locative complement of the verb *es-*, ‘to be’, ‘to stay’; example (6) illustrates the use of a static adverb (*peran*) with the verb *dai-*, ‘to put’.<sup>6</sup>

Note that the adverbs behave as nominal constituents; the two sets match the use of local cases of the noun: static adverbs share the distribution of NP’s in the dative/locative, whereas dynamic adverbs have the distribution of NP’s in the directive. Since animate nouns are never inflected in the directive in Old Hittite, verbs that take the directive with inanimate NP’s take the dative/locative with animate ones:<sup>7</sup>

- (7) [LUGAL-*w*]*ann=a parna 3 GÍN KÙ.BABBAR dasker*  
king:GEN-PL and house:DIR 3 shekel silver take:3PL-ITER-PRET  
“they used to take three shekels of silver to the royal palace”, *HG* § 25 (=Friedrich, 1959).

- (8) *hurtiyali=ma AN.BAR-as nepis 1-EN kitta*  
bowl:D/L CONN iron:GEN sky-NOM one lie:3SG-PRES  
“an iron sky lies on the bowl”, *StBoT* 8 i 7’-8’ (=Otten & Souček, 1969);

- (9) *su= wa<sup>URU</sup> hattusa hengani paun*  
CONN PTC H.:DIR death:D/L go:1SG-PRET  
“I went to Hattusa to death”, *StBoT* 17, rev. 5-6 (=Otten, 1973);

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<sup>6</sup> Note that the use of locative, rather than directional, expressions with verbs of a similar meaning is common to some other ancient Indo-European languages as well, as shown in Homeric Greek *khamai bálon en koníe:isi* “they threw him on the ground, in the dust” (Il. 5.588), where *en* with the dative, commonly used for locatives, indicates a goal; cf. Luraghi (1996: 72).

<sup>7</sup> See Starke (1977) and Luraghi (1986).

- (10) *nu= us appa ishi= ssi pennai*  
 CONN 3PL-ACC back master:D/L 3SG-POS-D/L drive:3SG-PRES  
 “(s)he takes them (= the oxen) back to their (sg.) owner”, *HG* § 79 (=Friedrich, 1959).

The two sets of adverbs in Old Hittite include the following:

STATIC	DYNAMIC
<i>andan</i> , ‘inside’	<i>anda</i> , ‘into’
<i>appan</i> , ‘after’, ‘behind’	<i>appa</i> , ‘back’
<i>istarna, istarni=</i> , ‘among’	-
<i>kattan</i> , ‘below’	<i>katta</i> , ‘downwards’
<i>kattan, katti=</i> , ‘beside’, ‘with’	-
<i>menahhanda</i> , ‘in front of’	<i>menahhanda</i> , ‘toward the front of’
<i>peran</i> , ‘before’, in front of’	<i>para</i> , ‘forewards’
<i>ser</i> , ‘above’, ‘over’	<i>sara</i> , ‘upwards’

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Of the forms listed above, *istarni=* and *katti=* only occur with enclitic possessives; *menahhanda* has both static and dynamic value in Old Hittite already. In addition, Starke (1977: 181-187) also lists a *katta*<sub>2</sub>, which functions as a static adverb, in spite of homophony with dynamic *katta*. Strictly speaking, this *katta*<sub>2</sub> is the real correspondent of the form *katti=* used with clitics, because the two forms express Comitative, whereas *kattan* mostly means ‘below’, and only sometimes ‘nearby’.

Besides their semantic difference, the two sets of adverbs also differ in their syntax. In Old Hittite static adverbs are characterized by some properties of nominal heads, in that they can take modifiers in the genitive or possessive clitics, as in:

- (11) [*nu mPi*] *thanas attas= mas appan saniya uitti [h]ullanzan*  
 CONN *P*.:NOM father:GEN my:GEN after following:D/L year:D/L rebellion:ACC  
*hullanun*  
 conquer:1SG-IND-PRET  
 “after my father Pithanas in the same year I defeated a rebellion”, *StBoT* 18, 10-11 (=Neu,

1974);

- (12) É-az 1 LÚ 1 SAL *katti=ssi* *ienta*  
house:ABL one man one woman with POSS:3SG-D/L-SG go:3PL-IND-PRES  
“a man and a woman from the house go with him”, KBo 23.1 13'-14';

- (13) *apas=* *a* *peran=mit* *kunnaz* *esari*  
that-one:NOM CONN before 1SG-POSS-SG-N right:ABL sit:3SG-PRES-M  
“he shall sit down in front of me, on my right”, *StBoT* 18, 78-79 (=Neu, 1974);

In (11) the adverb *appan*, ‘after’, occurs with the genitive *attas=mas*, ‘of my father’, in a pattern found with numerous adverbial adpositions of nominal origin in the other Indo-European languages (as an example, one can think of Latin *causa* and *gratia*; a similar pattern also occurs in example (6) above). In (12) the adverb *katti=* hosts the third person possessive clitic *-si* and can be compared with the NP *ishi=ssi* ‘(to) his master’, in (10). Possessives are enclitic adjectives, that cliticize to the head noun they modify and agree with it in case and number. Note that *katti=* has the form of a noun in the dative/locative (see below); accordingly, the possessive is inflected in the dative/locative. Example (13) also contains a possessive; here, the adverb *peran* has the form of a nominative/accusative neuter or of a bare stem, and so does the possessive. Note that possessives with adverbs behave as personal pronouns, rather than adjectives. Note further that *andan* does not seem to take possessive clitics.

When a dynamic adverb co-occurs with a NP in the directive or in the dative locative, the former normally appears earlier in the sentence than the latter, as in

- (14) DUMU.NITA<sup>MEŠ</sup> *appa* URU<sup>URU</sup> *nesa* *ianzi*  
son:PL back N.:DIR go:3PL-PRES  
“the sons go back to Nesa”, *StBoT* 17 obv. 7-8 (=Otten, 1973);

and (10), with an animate Benefactive expression. Later, both static and dynamic adverbs can be

used as postpositions with the dative/locative;<sup>8</sup> but apparently this development had not yet started in Old Hittite, at least as far as dynamic adverbs are concerned. However, when a dynamic adverb co-occurs with a NP in the ablative, it always follows, as in

- (15) [(LU)]GAL-*us* <sup>GIS</sup>*huluga*[*nnia(z)*] *katta* *u*[(*izzi*)]  
kingh:NOM litter:ABL downwards come:3SG-PRES  
“the king gets down from the litter”, *StBoT* 25, 25 i 28’ (=Neu, 1980a).

Note that starting with the Middle Hittite period, some dynamic, but not static, adverbs develop into postpositions with the ablative. In the light of this development, the relative position of ablative NP’s and dynamic adverbs can be held as a hint of postpositional use of the latter, already in Old Hittite.<sup>9</sup>

Static adverbs which co-occur with a Location expression in the dative/locative can precede it, in which case the construction is similar to what we find with dynamic adverbs: the NP appears to be adpositional to the adverb, and restricts its reference, as in

- (16) DAM <sup>LÚ</sup>IM.ME *andan siunas* *É-ri* *sarhulias* *peran arta*  
wife priest inside sun:GEN house:D/L pillar:GEN before stand:3SG -PRES  
“the wife of the *I*-priest stands inside of the house of the sun in front of a pillar”, *StBoT* 23, p. 284 (=Starke, 1977).

Sometimes the dative/locative can precede the static adverb; in such cases, the relation between the two appears to be one of complement and postposition, as in the expression *karaitti peran* in (17c):

- (17 a) *labarnas* *É-ir=* *set* *tuskarattas* *hassas=* *sas*  
*l.:*GEN house:N/A POSS3SG-N/A joy:GEN grandchild:D/L-PL POSS3SG-D/L-PL *hanzassas=*

<sup>8</sup> Or, marginally, with the directive: the process of syncretism that led the dative/locative to merge with the directive took place at the expense of the latter case, which eventually disappeared, see Luraghi (1987).

<sup>9</sup>On this and similar examples see Luraghi (1990a: 33-34).



*sas*

- grand-grandchild:D/L-PL POSS3SG-D/L-PL  
b) *n= e= ssan<sup>NA4</sup>peruni wetan*  
CONN 3PL-N/A PTC stone:D/L build:PART-N/A  
c) *appaliyas= a É-ir= set karaitti peran wetan*  
opponent:GEN PTC house:N/A POSS3SG-N/A flood:D/L before build:PART-N/A  
“the house of *labarna* is a house of joy for his descendents; it is built on stone: the house of the opponent, instead, is built in front of the flood”, *StBoT* 25.140, rev. 13-18 (=Neu, 1980a).

At the end of the Old Hittite period, the Hittite case system underwent a process of syncretism, which, among other things, led to the disappearance of the opposition between the directive and the dative/locative. Local adverbs of both sets remain in use until the end of the written attestations, but the opposition static/dynamic is completely blurred. Starting with Middle Hittite, postpositional use develops with all local adverbs (except *appa*) and the dative/locative, as shown for *anda* with the dative/locative *ÍD-i* in (18). Note that in Old Hittite the verb *lahu-*, ‘to pour’, takes the directive; furthermore, dynamic adverbs never follow a Direction complement in Old Hittite:

- (18) *ÍD-i anda lahuwai*  
river:D/L into pour:3SG-PRES  
“(s)he pours into the river”, *TdH* 2 iv 3 (=Jakob-Rost, 1972).

In Middle Hittite one still finds some of the patterns typical of Old Hittite, together with the younger ones. Beside postpositional use, local adverbs also tend to behave as preverbs, i.e. they tend to build a semantic unit with the verb. This process can be increasingly observed, although it seldom led to univerbation of the preverb with the verb. Examples are<sup>10</sup>

- (19) *mahhan= smas kas tuppianza anda wemizzi*  
when you:PL-OBL this:NOM-SG-C tablet:NOM-SG-C into find:3SG-PRES  
“when this tablet will reach you”, *Mst.* 75.10, obv. 3-4 (=Alp, 1980).

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<sup>10</sup> In the other Anatolian languages too the adverbs tend to behave as preverbs, as shown in Lycian:  
*hrizzi prñnawi me= i ñtepi=tãti I[dã M]axzzã se ladã*

(20) *nasma=kan* ARÀH.HI.A *kuiski* *sara adan* *harzi*  
 or PTC granary somebody:NOM-SG up eat:PART-N/A have:3SG-PRES  
 “or (if anyone) has eaten the granaries”, *BM* iv A 21 (=von Schuler 1957).

(21) *anda=ma= kan kissan memai* *petanti* *et=* *za nu= za duskiski*  
 into CONN PTC so say:3SG-PRES place:VOC eat:2SG-IMPER PTC CONN PTC rejoice:  
 2SG-IMPER  
 “and he interjects as follows: ‘O place, eat and rejoice’”, KUB 32.137 ii 2-3;

## 2. Etymology and origin of local adverbs

If one compares the two sets of adverbs from a formal point of view, one is struck with the regularity of dynamic adverbs, as compared to the irregularity of static ones. Dynamic adverbs all have full grade of the root and the ending *-a*, which corresponds to the ending of the directive of the *-a-* declension. Static adverbs, on the other hand, have different grades of the root; in particular, the form *peran*, often written *pe-e-ra-an* in Old Hittite could be a lengthened grade.<sup>11</sup> Static adverbs also have different endings, and, what is most striking, only some of the forms that can take possessives display the ending *-i* of the dative/locative, while the other forms could be nominative/accusative neuter, bare stems, bare stem locatives (especially in the case of *ser*); the adverbs *istarna* and *menahhanda*, in spite of their static value, have the directive ending.<sup>12</sup>

This situation, together with the fact that only static adverbs share some of the properties of nominal heads, could be suggestive of an older origin of stative adverbs. For the homogeneity of dynamic adverbs could depend on the fact that they are a later creation, shaped to match the stative adverbs, when the stative/dynamic opposition was created, and that the ending of the directive was

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upper:LOC building:LOC CONN 3SG-LOC PREV bury:3PL-PRES I.M.:ACC and wife:ACC  
 “In the upper building they will bury Ida Maxzza and (his) wife” TL 57.6-7.

<sup>11</sup> However, according to some scholars it could even disguise a  $\emptyset$  grade (*\*/pran/*); according to another view, it could be *para*, usually spelled *pa-ra-a*, to have  $\emptyset$  grade of the root and represent *\*/pra:/*.

<sup>12</sup> In Luwian the *-i* forms tend to be generalized. We find alternations: *anda*, *appa/appan/api*, *parra/parran/parri*, *sarra/sarri*

used in order to enhance the semantic opposition. However, some of the dynamic adverbs have very good Indo-European etymologies, and correspond to preverbs/adpositions of other languages, as *para* to Greek *pará*, and *katta* to Greek *katá*. So it appears that some of the dynamic adverbs are at least as old as the static ones.

As for the static adverbs, although they can behave as nominal heads, some of them can be connected to adverbs of the other Indo-European languages, notably, *andan*, which can be compared to Greek *éndon*, ‘inside’. The Greek form, in its turn, has sometimes been derived from the preverb/adposition *en* plus a form of the root found in the word *dōma*, ‘house’; however, this etymology is not certain; the ending *-don* could be an adverbial suffix, since in Archaic Latin we find *endo*, apparently similar, but with a slightly different suffix, which could correspond to Hittite *anda*. In any case, this is an interesting formation, involving the strengthening of a preverb, to achieve virtually the same of the original meaning of the preverb alone. Note that the adverb *kattan/katta*, with numerous cognates in the other Indo-European languages, also originates from a preverb strengthened through the addition of a second determination, in this case perhaps some kind of particle or ending; the Hittite and the Greek forms are understood as deriving from a Ø grade of the root *\*kom/km* plus the suffix *ta*.<sup>13</sup> As for *peran*, it goes back to the Indo-European group of preverbs to which Latin *pro* and *per* also belong; the Hittite form could be directly compared to Latin *peren-* of *perendie*, ‘the day after tomorrow’, or to Greek *péran*, cf. Carruba (1969).

In sum, at least for the couplets *anda/andan* and *para/peran* one apparently has to reckon with adverbial forms which have adverbial correspondents in the other Indo-European languages, and there is no need to postulate nominal origin, at least within Anatolian, for all static adverbs. In the case of *katta/kattan* and of *appa/appan* the form with the *-n* suffix has no cognates, but it could be analogic to *andan* and *peran*. I do not mean to say that even these adverbs are not ultimately nominal in origin, but, in any case, they apparently go back to Indo-European adverbs, and it is

misleading to think that the fact that some of the static adverbs behave as nominal heads is a straightforward consequence of their being old nominal forms. I am rather inclined to think that, when the static/dynamic opposition between the two series was established, the adverbs, some of which had suffixes similar to or deriving from case forms, were reinterpreted as nouns, also on account of the fact that they often functioned as complements of verbs, much in the same way as nominal constituents.

Among static adverbs, the form *ser* does not display any suffix and is often thought to represent a zero locative. Zero locatives are attested, with a different root apophony with respect to the nominative/accusative, for words that refer to local concepts, as in *tekan*, ‘earth’, *takan*, ‘on the ground’.<sup>14</sup> Another possibility, in view of Cuneiform Luwian *sarri*, is that *ser* reflects a locative *\*seri* with apocope of the final *-i*. If *sara* is old, it should reflect a zero grade of the root, maybe */sra/*, but in my opinion this form is relatively recent and modeled after *para*. The Indo-European etymology of *ser* is far from being clear. Carruba (1969) connects the form *ser* to the Luwian local particle *-tar*, which he thinks is a cognate of Sanskrit *tiras*, ‘through’.

Beside the adverbs that I have mentioned up to now, we find in Hittite two other couplets, i.e. *arha/arahza*, ‘outside, out of’, and *tapusa/tapusza*, ‘near, next to’. These are genuine Anatolian formations, and their connection with nouns is still apparent: *arha* derives from *arha-*, *irha-*, ‘border’, in the directive case; *arahza* is its ablative; similarly, we have *tapusa* < *tapus-*, ‘side’, in the directive case; *tapusza* in the ablative.<sup>15</sup> In the case of these adverbs, Starke (1977: 197-200) has argued that the connection with the original noun was still active in Old Hittite, or, rather, that in Old Hittite the occurrences of these forms can be taken as occurrences of the corresponding nouns, inflected in the directive or the ablative respectively. Among all adverbs, *arha* is perhaps the one which more clearly developed preverbal usage after Old Hittite, and it also became

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<sup>13</sup> Cf. Pokorny (1959: 612-613).

<sup>14</sup> On the form and extent to which Ø locatives occur, see Neu (1980b).

<sup>15</sup> On the formal development of the ablative ending in *tapusza* see Joseph (1984).

extremely frequent.

Finally, the adverb *menahhanda* originated from a nominal compound within Hittite, consisting of *mena-*, ‘face’, and *hant-*, ‘forehead’ (cf. Gr. *anti*).

To sum up, we have seen that local adverbs partly originated from nouns referring to spatial concepts or, in the case of *menahhanda*, to body parts. This is a common type of grammaticalization process, attested in a variety of developments cross-linguistically. Part of the adverbs, however, can be connected to the Indo-European preverbs/adpositions, mostly strengthened by some kind of adverbial suffix or by a case form.

### 3. Function of the local particles in Old Hittite

The local particles of Old Hittite are *-an*, *-san*, *-(a)p(a)*, *-(a)sta*, and *-kan*. For some of them, a connection with a specific case form or a specific local adverb is clear. Let’s start with *-san*, which is normally found when a dative/locative also occurs in the sentence, and has a situative meaning:

- (23) <sup>NINDA</sup>*sarrui=ma= ssan ERÍN<sup>MES</sup>-az eszi*  
s.bread:D/L CONN PTC troop:NOM sit:3SG-PRES  
“a (clay figurine of a) troop sits on the s.bread”, *StBoT* 8, i 30 (=Otten & Souček, 1969).

The particle *-san* also shows a connection with the adverbs *ser*, as in (24c):

- (24 a) *ke= san humanda [p]addani tehhi*  
this:N/A-PL PTC all:N/A basket:D/L-SG put:1SG-IND-PRES  
b) *n= e LUGAL-us MUNUS.LUGAL-ass=a kitkar=smet tehhi*  
CONN 3PL-N/A king:NOM queen:NOM and head:LOC 3PL-POSS put:1SG-IND-PRES  
c) *ser= a= san GAD-an pessiami*  
over PTC PTC cloth:ACC-SG throw:1SG-IND-PRES  
d) *su= us LÚ-us natta auszi*  
CONN 3PL-ACC man:NOM not see:3SG-IND-PRES  
“I put all these things in a basket and put them over the head of the king and the queen; I throw a cloth on top, and nobody sees them”, *StBoT* 8, iv 20-22 (=Otten & Souček, 1969).

Here it is interesting to observe that *-san* occurs in (24a) without an adverb, but with the

dative/locative *paddani*, then it does not occur in (24b), with the NP LUGAL-*us* MUNUS.LUGAL-*ass=a kitkar=smet* whose head is the Ø locative *kitkar*, and finally it is found again in (24c), this time together with the adverb *ser*. This particular example could be a hint to the development, found later on, toward an anaphoric function of the particle, although, as noted in Boley (1989: 94), the adverb alone can refer to the preceding NP. So the function of *-san* at this stage appears to be mostly deictic, pointing to the occurrence of some sort of Location expression in the sentence.<sup>16</sup>

The particle *-an*, too, has a rather clear connection with an adverb, *anda*, with which it most likely is also connected etymologically:

- (25) *ug= an namma anda [p]aimi*  
 1SG-NOM PTC besides into go:1SG-PRES  
 “I go inside again”, *StBoT* 8, ii 45 (=Otten & Souček, 1969).

This particle is very infrequent; it always co-occurs with *anda* or with a Direction expression where motion toward the interior of a referent is implied. It disappeared after Old Hittite.

The particle *-asta* is usually thought to have a separative meaning; as Boley (1989) has shown, it rather highlights the beginning of an action:

- (26) LUGAL-*i para I-ŠU paizzi appa= ma= sta nea LÚmenean KUŠsarazzit*  
 king:D/L towards once go:3SG-PRES back CONN PTC turn:3SG-PRES *m*: ACC *s*.:STRUM  
*walhzi para= m= as paizzi LÚ.MEŠ ALAM.KAxUS-us walhzi*  
 hit:3SG-PRES forwards CONN 3SG-NOM go:3SG-PRES clown:ACC-PL hit:3SG-PRES  
 “he goes once towards the king, then he turns back, he hits the *m*. with a *s*, he goes forwards and hits the clowns”, *StBoT* 25, 43 i 11-13 (=Neu, 1980a).

An interesting example, although it appears to be isolated in Old Hittite, is

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<sup>16</sup> On the occurrence of *-san* with the verb *pai-* and a directive, see Boley (1989).

- (27) *ta*<sup>DUG</sup>*TU*<sub>7-sa</sub> *saliga* <sup>UZU</sup>*ÚR*= *asta dai* *ta*=[ *at app*]*a*  
 CONN vessel:DIR approach:3SG-IND-PRES member PTC take:3SG-IND-PRES CONN 3SG-N/A back  
<sup>DUG</sup>*TU*<sub>7-sa</sub> *pessiezzi*  
 vessel:DIR throw:3SG-IND-PRES  
 “(s)he approaches the vessel, takes out the member and throws it back into the vessel”,  
*StBoT* 25.43 i 15-16 (=Neu, 1980a),

where the particle apparently refers back to the NP <sup>DUG</sup>*TU*<sub>7-sa</sub>. Also interesting in this connection is

- (28) [*m*]*an lukkatta* <sup>É</sup>*halentuwa* [*h*]*assanzi* <sup>KUŠ</sup>*NÍG.BÀR*=*asta ussiyanzi*  
 when dawn:3SG-IND-PRES *H.*:house:N/A open:3PL-IND-PRES curtain PTC lift:3PL-IND-PRES  
 “when it dawns they open the *h.* house; they lift (away) the curtain”, Kbo 10.23+ i 2-5.<sup>17</sup>

Here the meaning of *-asta* appears to be only separative, without any anaphoric reference to a preceding NP: such contexts can be suggestive of an aspectual usage.

Similar to *-an*, also *-(a)p(a)* frequently occurs with *anda*, as in

- (29) *labarnas* LUGAL-*us inarawanza* *nu*= *sse*= *pa utniyanza* *humanza*  
*l.*:NOM king:NOM be-strong:PART-NOM CONN 3SG-DAT PTC population:NOM all:NOM  
*anda inarahhi*  
 into become-strong:3SG-PRES  
 “the king *labarna* is strong and the whole country is strengthened by him” (or ‘strenghtens him’), *StBoT* 25.140 rev. 11-12 (=Neu, 1980a);

where the particle appears to have a deictic function with respect to the adverb; according to Boley (1989: 335) its meaning is ‘up against’. Later on, this particle, too, developed a more abstract meaning, as in

- (30) *n*= *an*= *kan kunanzi* *s*= *an*= *ap atanzi*  
 CONN 3SG-ACC PTC kill:3PL-IND-PRES CONN 3SG-ACC PTC eat:3PL-IND-PRES  
 “they kill him and eat him up”, Kbo 3.60 ii 4-5

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<sup>17</sup> The example is from a copy of an Old Hittite text; in the Old Hittite original the first sentence is broken away, but the

where =*ap* appears to indicate perfectivity, just as the particle in the English translation ‘eat up’, cf. Boley (1989: 68).

The last particle, *-kan*, is not yet the most frequent in Old Hittite, but its range of use increases in Middle Hittite already. It is less clearly understandable than the other particles: Boley (1989: 335) writes that this is the only particle “with no clear local connotation”; she adds that, when occurring with local adverbs, *-kan* “is used to mark an end point of the verbal content, either initial or final, and is not present when the end point is not marked. In stative use, *-kan* is included when *anda* is present” (Boley, forthcoming). It is found with various verbs and sometimes it can alternate with other particles. From the very beginning it seems to have a sort of anaphoric function, or to underline continuity with the preceding sentence, as remarked in Boley (forthcoming); this can explain its frequent occurrence with unstressed forms of personal pronouns. Examples are:

- (31) *ta* LUGAL-*i* SAL.LUGAL-*ya* *kissan memahhi kasata=smas= kan utniyandan*  
 CONN king:D/L queen:D/L so speak:1SG-PRES behold 2PL-DAT PTC population:GEN  
*lalus dahhun irma<n>= smas= kan dahhun kardi= smi=*  
 tongue:ACC-PL take:1SG-PRET illness:ACC 2PL-DAT PTC take:1SG-PRET heart:D/L POSS:2PL:  
 D/L  
*ya=at= kan dahhun*  
 and 3SG:N/A PTC take:1SG-PRET  
 “to the king and the queen I speak as follows: ‘behold! I took away from you the bad words  
 of the population, I took away illness, I took it away from your heart”, *StBoT* 8 i 9-12  
 (=Otten & Souček, 1969);

- (32) *hassan= kan huyanzi*  
 hearth:ACC PTC run:3PL-IND-PRES  
 “they run to (?) the hearth”, *StBoT* 25.31 iii 8 (=Neu, 1980a).<sup>18</sup>

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second contains the particle *-asta*.

<sup>18</sup> The meaning of the accusative in this example and in example (34) is far from clear: although it is generally translated as a Goal accusative, it must be stressed that the accusative case never has such function with verbs other than *huwai-*, ‘to run’, in Old Hittite. Starke (1977) remarks that this verb never takes a directive case in Old Hittite (it does, however, starting from Middle Hittite). I suggested (in Luraghi, 1986) that *huwai-* has an accusative second argument, similar to a transitive verb. Singer (1984) suggests that *huwai-* with the accusative could mean ‘to run around somebody’.



Note that the particles are never obligatory with any of the verbs they can co-occur with; we have already seen the verb *dai-*, ‘to put’, with or without the particle *-san*, in (24); as for *-kan*, the above examples can be compared with the following ones:<sup>19</sup>

(33) *man ain wain pittulius= a LUGAL-i MUNUS.LUGAL=ya*  
 when pain:N/A-SG evil:N/A-SG fright:ACC-PL and king:D/L queen and  
*daskemi*  
 take:1SG-IND-PRES-ITER  
 “whenever I take away pain, evil and fright from the king and the queen”, *StBoT* 8 i 7’-8’  
 (=Otten & Souček, 1969);

(34) *[3-i]s LUGAL-un MUNUS.LUGAL-ann=a huyanzi*  
 thrice king:ACC queen:ACC and run:3PL-IND-PRES  
 “they run three times to(?) the king and the queen”, *StBoT* 8 i 3 (=Otten & Souček, 1969).

#### 4. Development after Old Hittite

After the Old Hittite period, the local meaning of the particles tends to become more and more vague: apparently, one can observe a process of semantic bleaching, parallel to the development of the local adverbs as preverbs. This development had as a consequence, among other things, the increasing use of *-kan* in the place of all other particles, which eventually tend to disappear. In Middle Hittite *-an* never occurs; *-(a)p(a)* is still connected with *anda*, similar to what we found in Old Hittite:

(35) *huiswatar=ma= pa anda hingani haminkan*  
 life:N/A CONN PTC into death:D/L tie:PART-N/A  
 “life is tied to death”, KUB 30.10 obv. 20.

As we have seen above, there is reason to doubt that *-kan* ever had a local meaning in the sense of the other particles, but it rather pointed toward the end point of the verbal content. Starting from

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<sup>19</sup> The contrast between (31), with *-kan*, and (33), without, can be connected with some anaphoric *nuance* of *-kan* in the

Middle Hittite, this tendency appears to have as its outcome the development of an aspectual meaning, as shown by comparison of (36) and (37):

(36) *nu sumes DINGIR<sup>MEŠ</sup> DINGIR<sup>MEŠ</sup>-as istanz[an]it sekten[i]*  
 CONN 2PL-NOM god:PL god:GEN-PL understanding:INSTR know:2PL-IND-PRES  
 “you gods know with the understanding of gods”, KUB xvii 21 i 6;

(37) *nu= za DUMU-annaz kuit ŠA DINGIR-YA duddumar n= at= kan*  
 CONN PTC childhood:ABL which:N/A of god my grace:N/A CONN 3SG-N/A PTC  
*sakhi*  
 know:1SG-PRES-IND  
 “what the grace of my god has been since my childhood, I know it”, KUB 30.10 obv. 10.

In (36) the verb *sak-*, ‘to know’, denotes permanent knowledge, thus it has a stative meaning; in (37), on the contrary, the beginning of the state of affairs is highlighted.

Besides, a particle (more frequently *-kan*, but it could also be *-asta*) became obligatory with some telic verbs, as *kuen-*, to ‘kill’. An example is found above, in (30).

Perhaps the most interesting development of *-kan* is its anaphoric function, that we had seen starting in Old Hittite for *-asta*:

(38) *LÚ SAGLA 1 NINDA wagessar askaz udai LUGAL-i pai*  
 cupbearer one w.-bread:n/A-SG door:ABL carry:3sg-IND-PRES king:D/L give:3SG-IND-  
 PRES  
*LUGAL-us parsiya ta= kkan waki*  
 king:nom cut:3SG-IND-PRES CONN PTC bite:3SG-IND-PRES  
 “the cupbearer brings one w.-bread from the door; the king cuts and bites from it”, KUB 25.6 iv 11-14.

The particle *-asta* is the one which is preserved longer, together with *-kan*, but the meaning of the two particles is virtually indistinguishable; *-san* is still used as in Old Hittite, but *-kan* often occurs in the same type of context. Note that, in the process of replacement of the other particles, *-kan*

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first of the two examples, which is absent in (33), where the sentence is paragraph initial.

apparently acquires the local meaning that it was lacking in Old Hittite. But this is only a seeming shift towards a more concrete meaning: in fact the particles in their more concrete, local function are not replaced by *-kan* alone, but rather by *-kan* plus a local adverb. As Boley puts it: “Certainly the simple *testa panzi* of OH has become *nat-kan para panzi* in MH: ... the particle is no longer sufficient to supply the [local] sense” (1989: 339).<sup>20</sup>

## 5. Etymology of the particles

Although several etymologies have been suggested for the particles, I think that their most likely origin should be traced back to the Indo-European preverbs.<sup>21</sup> Among the latter, *\*en* corresponds both phonologically and semantically to *-an*. The particle *-(a)p(a)* can be compared with various Indo-European preverbs with a bilabial, as Latin *ob* and Greek *epi*,<sup>22</sup> while the particle *-san* is connected with Sanskrit *sam*, ‘with’.<sup>23</sup> For *-(a)sta* things are more difficult: it has been connected to Greek *énthen*, ‘thence’, an etymology which would fit the meaning of the particle, though phonologically difficult. Indo-European *\*kom* of Latin *cum*, Skt. *kám* (accented), OCS *ku*, Germanic *ga-*, has been recognized as the source for *-kan* by various authors. According to another etymology, *-kan* is viewed as connected with PIE *\*kem*, an enclitic particle with some kind of discourse function, reflected in Greek *ken* and Skt. enclitic *kam*.<sup>24</sup> Dunkel (1990a) suggests that the particle *\*kem* had an emphatic value, and that it was connected with *\*kom*, ‘with’ (in fact, it is the

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<sup>20</sup> *t= e= sta panzi*  
 CONN 3PL-NOM PTC go:3PL  
*n= at= kan para panzi*  
 CONN 3PL-NOM PTC forward go:3PL  
 “they go forward”.

<sup>21</sup> Among etymologies of different type, one frequently finds the attempt to relate the particles to pronominal stems, see e.g. Josephson (1972) on a possible connection of *-asta* with the third (*-as*) and second (*-ta*) person clitic pronouns.

<sup>22</sup> For this etymology, see Carruba (1969: 33), who connects *-(a)p(a)* with PIE *\*o/ep/phi*. Boley (1989: 71) also accepts this etymology, and writes that “its use suggests that *-apa* might well be a cognate of Latin *ob*; Oscan-Umbrian *op*, ... Greek *epi*; and Skt. *api*”.

<sup>23</sup> See Mayrhofer (1976: 345).

<sup>24</sup> Cf. Pedersen (1938: 158-159), and Ernout & Meillet (1959: 156) for the first etymology; for the second, see for example Mayrhofer (1976 I: 159), and Boley (forthcoming) who, by this latter connection of *-kan*, explains the difficulties in establishing a precise local meaning for the Hittite particle.

emphatic meaning that provides the connection between the two particles, according to Dunkel, 1990a: 120). Discussing Hittite *-kan*, Dunkel (1990a: 119) notices the parallel between Hittite *nu-kan*, found when the particle occurs in a sentence that has the connective *nu* as its first word, and Skt. *nú kam* (which, it must be remarked, occurs clause internally, and not initially, as the Hittite expression). Conflation of the two particles would explain both this parallel, and the parallel suggested by other scholars between enclitic *-kan* and enclitic *cum* in Latin expressions such as *nobiscum* (on which see below, § 7).<sup>25</sup> I think that speculations based on apparent parallel uses of the above mentioned particles are too far fetching; however, the formal connection of *-kan* with various particles found in the other languages at least makes clear its Indo-European origin. Besides, the similar behavior of the other particles, that are etymologically related to Indo-European preverbs, makes it very likely that *-kan*, too, belongs to the same word group. As for Boley's remark that *-kan* had no spatial meaning in Old Hittite, and hence cannot be connected with an Indo-European preverb (Boley, forthcoming), I think that lack of local meaning can be traced back to semantic bleaching involved in grammaticalization; a similar loss of local meaning is also displayed by the Germanic cognates of *-kan*.<sup>26</sup>

At least for *-an* and *-kan* a connection with the Hittite local adverbs is also clear: *anda(n)* contains the preverb *\*en* and *kattan* most likely contains the preverb *\*kom*, both strengthened through the addition of suffixes. Another possible connection could exist between *-san* and *ser*, if we consider this an alternating stem in *-r/-n*, as in *watar*, 'water', n./a., *weten-as*, gen. Boley (1989) has shown that the task of the adverbs in Middle Hittite was to a great extent performed by the particles in Old Hittite. In the light of the evidence surveyed above, I think that the situation that we find in Old Hittite mirrors a transition stage, where the particles, which functioned earlier as preverbs in their

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<sup>25</sup> Critical remarks about Dunkel's theory are expressed in Ivanov (1999, fn. 25).

<sup>26</sup> Boley (forthcoming) finds that *-kan* often occurs with enclitic pronouns and concludes that the particle was used when the enclitic needed to be emphasized: enclitics being unstressed, they needed some sort of special marker when their importance in the sentence needed to be highlighted. I think that this position is at the best not clear about what it can mean that enclitics needed to be emphasized: when bearing special emphasis, pronouns occurred in their accented

own right, had already lost their autonomy and much of their meaning and were being replaced in their original function by the local adverbs. The latter, in their turn, had just started the process that eventually led them to become the functional equivalent of preverbs/adpositions known from the other Indo-European languages, a situation that we can observe in Late Hittite.

## 6. Grammaticalization

Grammaticalization is a common process in language change, by which grammatical categories are renewed. Grammaticalization involves semantic bleaching, loss of phonological autonomy and the shift from lexical to grammatical item. In grammaticalization processes lexical morphemes become grammatical ones and grammatical morphemes become more grammatical:<sup>27</sup> so for instance a word belonging to an open class (e.g. a verb) can undergo grammaticalization becoming an element of a closed class (e.g. an auxiliary); further grammaticalization could lead the same item to become first a clitic and then a bound morpheme (a verbal ending). Such a process is well known and can be observed to happen over and over again in languages. An often quoted example is given by the Romance future, a synthetic formation that replaced the Latin future, also a synthetic formation, passing through a stage where it was a periphrasis. Note that the Latin future, too, is thought of as deriving from coalescence of an older periphrasis. The renewal of the future tense markers can then be conceived as a shift change. Hopper and Traugott (1993:10) summarize the process as follows:

<b>Pre-Latin</b>	<b>Latin</b>	<b>French</b>
*?		
*kanta b <sup>h</sup> umos	> cantabimus	
	cantare habemus	> chanterons

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form, rather than as clitics.

<sup>27</sup> “Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a grammatical to a more grammatical status” (Kurylowicz, 1965).

As this example shows, often a grammatical change implies a further grammatical change, meant to replace a category that is being lost because of various reasons: it can be phonological attrition, or it can be that, as Meillet (1912) thought, words in frequently used collocations tend to lose their expressivity. The latter appears to be the case for the Hittite particles: their meaning was reinforced, possibly at a pre-literary stage, when they were still free forms, by the occurrence of certain semantically related adverbs, by which they were eventually replaced.

As for the evolution in meaning of the particles during their attested history, we may observe:

- a) the change from local to aspectual marker partly matches the semantic developments that can be observed for preverbs of other languages. The Indo-European preverbs “...ont pour la plupart une valeur locative. Ils indiquent la localisation ou la direction des procès exprimés par les verbes auxquels ils s’affixent. Souvent aussi, ils peuvent servir à marquer des nuances diverses, en particulier aspectuelles”(Lazard, 1995);
- b) the development of an anaphoric function out of the original local deictic one also follows common developments of deictic forms: it is enough to mention various changes attested throughout Indo-European where anaphoric pronouns are originated out of demonstratives.

In order to explain this development, Boley (1989: 105-110) correctly compares the particle *-asta* with the Italian clitic *ne*, French *en*, a particle that derives from Latin *inde* and has an anaphoric ablative meaning, as in Italian

- (39) *è entrato in casa e non ne è piú uscito*  
 “he went into the house and didn’t come out (of it)”.

In some occurrences the anaphoric value of *ne* is no longer present, as in It. *se ne va*, ‘s/he leaves’, where *ne* can only be said to point towards the initial point of the movement (cf. *se ne viene*, ‘s/he

comes?); even stative verbs can take the particle, cf. *se ne sta*, ‘s/he stays’, in

- (40) *Giovanni se ne sta buono al suo posto*  
“John is sitting still in his place”.<sup>28</sup>

Note that if the etymology that connects *-asta* with Gr. *enthen* is correct, we would also have a formal parallel to the Romance development.<sup>29</sup>

Also the reinforcement of the older preverbs with some suffixes in order to build new forms is attested elsewhere in Indo-European, as remarked by Kurylowicz (1964): “[in Sanskrit] the new layer of adverbs, responsible for the rise of preverbs, is represented by forms frequently ... related to the old ones, i.e. to the preverbs. ... adverbs ... derived from preverbs function as their successors and *at the same time as their expressive reinforcements*.” (Examples are *úd/ uccá; ní/nicá; práti/pratyak, sam/samyak, saha, abhi/abhitah*, etc.).

In the case of the Hittite particles and adverbs, the grammaticalization processes involved can be summarized as follows:

simplex adverbs (included prev./adp.)	>	particles	>	bleached or lost
augmented/reinforced adverbs and nouns with spatial referent	>	adverbs (included prev./adp.)	>	assume former function of particles

## 7. From adverb to P2 clitic

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<sup>28</sup> It is impossible to translate the particle here; it seems to give the verb some kind of ‘affective’ meaning, that derives from the hint toward a bigger degree of control on the state of affairs, much in the same way as it does with motion verbs (among other things, *ne* with verbs such as ‘go’ or ‘stay’ only occurs with animate subjects). Davide Ricca (personal communication) suggests that high degree of control can derive from emphasis on the source, because control of motion corresponds to control on the source, rather than on the goal. Note that the particle in the type of expressions mentioned is always associated with the reflexive in Contemporary Italian; earlier it could occur alone in the same function.

<sup>29</sup> More examples from Italian and some examples from French can be found in Boley (1989: 106-109).

One question remains open, concerning the position of the particles: why did they become second position clitics, rather than, say, verbal clitics? This question must be addressed in the general framework of the development of P2 clitics, considering the importance of second position for enclisis in certain languages.<sup>30</sup>

The Anatolian languages have a large variety of P2 clitics, including sentence connectives, modal particles, and various pronominal forms. P2 clitics in Anatolian take as their phonological host the first accented word (including non-enclitic connectives) in the sentence. Clitics have a fixed order, according to which clitics with a wider scope (e.g. connectives, which have the whole sentence as their scope) precede clitics with a narrower one (e.g. pronouns, whose scope is the VP). The particles occupy the last slot in the clitic chain, which follows from the fact that their scope is either a certain constituent, or the verb, or that they can refer to something in the preceding sentence anaphorically, functioning as proforms. Since the scope of the particles is either the VP or some constituent in the sentence, one could expect to find them phonologically hosted by their syntactic host. Note that this should hold for pronouns as well. In other words, the P2 constraint for Anatolian was very strong; since the particles are similar to pronominal forms, the fact that we find pronouns in second position explains by itself why the particles ended up there, after losing their phonological autonomy.

Note that there are some examples of irregular position, where a particle does not occur in second position, but is attached to the NP that it refers to, as in:<sup>31</sup>

- (41) *nu= ssan PANI DINGIR<sup>LIM</sup> ANA GIŠBANŠUR.GIŠ=san ANA PANI NINDA<sup>A</sup>zippinni*  
 CONN PTC in-front-of god on wooden-table PTC in-front-of z.-bread  
*zikkizzi*  
 put:3SG-ITER-PRES  
 “he puts (everything) in front of the god on a wooden table in front of the z.-bread”, KBo  
 21.33+ iv 10-11.

<sup>30</sup> See Luraghi (1990b) and Krisch (1990) for cross-linguistic remarks on this tendency, known to Indo-Europeanists as Wackernagel’s Law.

<sup>31</sup> These and other similar examples are discussed in Neu (1993).



- (42) *n= asta* <sup>GIŠ</sup>MÁ *istappesnas* PA<sub>5</sub> *-as istappesnaz para* ÍD= *kan anda pedai*  
 CONN PTC ship basin:GEN channel:NOM basin:ABL towards river PTC into lead:3SG-PRES  
 “the channel of the basin leads the ship outside from the basin into the river”, KUB 29.7+  
 rev. 51-52.

In (41) the particle *-san* is repeated twice, the first time in second position, and the second after the NP *ANA* <sup>GIŠ</sup>BANŠUR.GIŠ, ‘on the wooden table’. The reason of the doubling here can be that the same sentence also contains another locative NP, *ANA PANI* <sup>NINDA</sup>*zippinni*, ‘in front of the z.-bread’. Note that both NP’s have the Akkadogram *ANA*, which, in Middle and Late Hittite, stands for a Hittite dative/locative, so that there is no hint as to which NP is the one deictically referred to by the initial *-san*.

Example (42) provides us with a different problem. Here we find two different particles, *-asta* in second position, and *-kan*, hosted by the PP *ÍD anda*, ‘into the river’. The two particles appear to have two different NP’s as their scope: as we have seen above, § 3, *-asta* expresses separation, or stresses the inceptive character of a verb, so here it must be connected with the other PP which also occurs in the same sentence, *istappesnaz para*, ‘forth from the basin’. However, only one local particle can occur in the initial clitic chain, which has definite slots for specific clitics that can be filled by one clitic only. So the irregular placement of *-kan* in this example apparently derives from the need to include two particles in the same sentence.

It could at first sight appear attractive to view these cases of irregular placement as mirroring an archaic stage, at which the particles had lost their phonological autonomy, but had not become P2 clitics yet. Following this approach, it could be argued that the particles shared the syntactic behavior of the Indo-European preverbs, which also occur as adpositions in the other ancient Indo-European languages; for *-kan*, in particular, one could see a parallel with enclitic *cum* with personal pronouns in Latin. Since adpositions are mostly unaccented, given the OV character of Hittite, enclisis on the constituent that they belong to syntactically is exactly what one would expect.

However, cross-linguistic comparison of P2 clisis, a phenomenon known from several genetically unrelated languages, shows that it would be a mistake to hold irregular placement of local particles as an archaism: as Steele (1977: 558-559), observing the development of P2 pronominal clitics, correctly remarks, “clitic pronouns move into second position as they become clitics; second position clitic pronouns can be attracted out of second position to the verb. Any reconstruction which depends on the assumption that the position of grammatical elements is a relic should be viewed dubiously”. Attraction of pronominal clitics out of P2 by the verb is attested in some other Indo-European languages, where Wackernagel’s Law appears to lose ground in the course of history, as in Classical Greek (cf. Luraghi 1990b). Just as pronouns (and modal particles, as again in Classical Greek, cf. Ruijgh, 1990) can be attracted by the verb, local particles in (41) and (42) are attracted by local expressions.

Boley (forthcoming) lists several other examples of particles placed in internal position. As in the examples discussed by Neu, the particles involved are *-kan* and *-san* (the examples with *-kan* being the vast majority). Boley, too, is skeptical about the possibility that sentence internal position reflects the original placement of the particles, and remarks that it is never attested in Old Hittite. It can be added that, if sentence internal placement is old, then it is very strange that it is limited to *-san* and *-kan*, and is not at least also attested for *-asta*.<sup>32</sup>

## 8. Conclusions

In the present paper I have described a linguistic change brought about by grammaticalization. I have argued that two word classes of Anatolian, local particles and local adverbs, derive in different ways from the preverbs of Proto-Indo-European. Partly parallel to their development in the other

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<sup>32</sup> I don’t think that the fact that *-kan* is found in internal position can support evidence for Dunkel’s (1990a) thesis, that *-kan* is a conflation of P2 particle *\*kem* and the preverb *\*kom*, which I have discussed above, § 5. More specifically, I think that any attempt to explain the position of one specific particle independent of the others should be regarded as limited, and that trying to explain the behavior and development of each single particle in isolation is exactly the reason why the particles have remained a puzzle up to the present.

Indo-European languages, preverbs underwent semantic bleaching in Anatolian, lost their phonological autonomy; eventually they became P2 clitics, a development that is not attested elsewhere. In the meantime other adverbs developed, mostly out of the same set of Indo-European forms, strengthened with suffixes, and replaced the preverbs/adpositions known from the other Indo-European languages in their original function. In other words, the change undergone by the particles and the consequent creation of the place words can be viewed as the equivalent of a drag chain in phonology.

My interpretation of the Hittite data has an important implication for the reconstruction of PIE. Very often, it has been held that the situation of Old Hittite, where there is no fully developed class of adpositions, mirrored the situation of PIE, and that adpositional use of preverbs developed later, in the single languages. With my account of the Hittite particles, I would like to show that this claim is incorrect: in my opinion, the first Hittite sources mirror a stage at which the lexical class of preverbs/adpositions was being renewed. That this lexical class already existed, with its different functions, before the Indo-European languages split, has been pointed out by other scholars already, on the basis of corresponding uses of cognate adpositions. Dunkel (1990b: 169-170) concludes his study of the adnominal uses Latin *pro* and its cognates by saying that one must “reject attempts to exaggerate the ... theory that the free adverbial function was at some point original so to exclude the adnominal and preverbal proper uses from Indo-European itself. In the face of this specifically adnominal use of *\*pró* ... we must conclude that the partial differentiation of the local adverbs into adnominal and preverbal *sensu stricto* functions had begun already in Indo-European”. More specifically, I would like to add that the ‘free adverbial function’ may well be original (historical development of adverbs into adpositions is attested in virtually all languages), but that this does not mean that there has ever been a stage of PIE that had no adpositions at all. The evolution of the Indo-European preverbs/adpositions in Hittite, and their renewal through the creation of a new class of adverbs, that eventually took over their same function, shows that a stage with no (or few)

adpositions may just be brought about by the fading of elements that existed earlier.

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## Summary

Es wird oft behauptet, dass das Anatolische einen besonderen archaischen Zug des Urindogermanischen behaltet, da es im Althethitischen keine echte Adpositionen und Präverbien gab, wobei der adpositionale und präverbale Gebrauch der Ortsadverbien sich erst spät entwickelt hat. Im Althethitischen werden die Ortsadverbien überwiegend als freie Adverbien verwendet; übrigens scheinen sie manchmal die Bedeutung der noch weitgehend verwendeten Ortsbezugspartikeln zu präzisieren. Ortsadverbien und Partikeln können teilweise zu den indogermanischen präverbien etymologisch zurückgeführt werden. Im Aufsatz wird behauptet, dass die Partikeln die selbe Funktion der Präverbien/Adpositionen der anderen indogermanischen Sprachen zu vorliterarischer Zeit ausgeführt haben. Später wurden sie einem Grammatikalisierungsprozess unterzogen, wobei sie sowohl ihre Bedeutung als auch die phonologische Autonomie verloren haben, und sind Klitika geworden. Im präverbialen und adpositionalen Gebrauch sind sie durch die Ortsadverbien ersetzt worden. In den ältesten Urkunden ist eine Zwischenstufe bewahren, wo die übergeschiederte Entwicklung sich noch nicht vollendet hatte.

On affirme souvent que l'anatolien garde une caractéristique archaïque de l'indoeuropéen, parce que il n'y a pas, dans l'hitite archaïque, des adpositions ou préverbes (echte?), l'usage préverbale et adpositionale des adverbes locaux s'ayant développé tard. Dans l'hitite archaïque, les adverbes locaux sont employés davantage comme adverbes libres; en outre, ils paraissent quelque fois préciser le signifié des particules locales, qui sont encore beaucoup employées. Etymologiquement les adverbes et les particules peuvent être ramenés (teilweise?) au préverbes indoeuropéennes. On affirme dans l'article que les particules, de une époque pré-littéraire, ont été employées dans la même manière que les préverbes/adpositions des autres langues indoeuropéennes. Plus tard elles ont subi un procès de grammaticalisation, pendant lequel elles ont perdu leur signifié et leur autonomie phonologique, en devenant clitiques. Dans l'usage préverbiel et adpositional elles sont

êtées substituées pour les adverbes. Dans les documents les plus anciens on observe un étage où ce changement n'était pas encore completé.

The paper aims at giving a unified account of the origins and development of the Anatolian 'local particles', which, as such, are not attested in any other Indo-European language. The particles are P2 clitics and mostly co-occur with some type of local expression. The function of the Indo-European preverbs is taken by a set of adverbs which, in the earliest stages of Anatolian, display a number of features typical of nominal constituents, as in the expression *attas=mas appan*, 'after my father', where the adverb *appan* takes a modifier in the genitive. The adverbs often co-occur with the particles. Etymologically, both the adverbs and the particles can in part be connected with the Indo-European preverbs. Since postpositional and preverbal syntax for the adverbs appears to develop during the history of Hittite, it has been suggested that Anatolian is particularly archaic, because it mirrors a stage of Indo-European at which there were no adpositions and no preverbs, but only independent adverbs. I argue that the particles go back to adverbial elements, and were formerly the functional equivalent of the Indo-European preverbs/adpositions. Later, these forms underwent semantic bleaching, became clitic and were attracted toward P2. (It must be mentioned that Anatolian is particularly rich in P2 clitics, which also include sentence particles, modal particles, and various types of pronominal forms). After cliticization of the former preverbs, the class of preverbs/adposition was reconstructed through the creation of local adverbs, which, in their turn, partly derive from nominal forms, partly from Indo-European adverbs. My claim has two consequences: a) it shows that the alleged archaism of Anatolian, at least as far as the existence of preverbs/adpositions is concerned, is an illusion; this word class did exist before Anatolian split from the rest of Indo-European already, but it was lost and renewed: what we observe in Old Hittite is the beginning of this renewal; b) it provides an example of a grammaticalization chain shift: former preverbs have undergone semantic bleaching and phonological reduction, becoming particles, and new preverbs have been created out of former adverbs and nouns to replace the older

ones.