

THE FUNCTION OF OI *COM*, *AD*, *RO* AND SIMILAR ELEMENTS IN SLAVIC

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0. Introduction

It is well known that *com* and *ad* are used with the OI verb with the same function as *ro*. This function, which has been called perfective, or a perfect, was analyzed by McCone (1997). The semantic and actional functions of Latin *con*, *ad* (and other prefixes such as *pro*) was discussed by Haverling (2000). Gothic *ga-* had similar functions. The function of the Hittite clitic *-kan*, which is related to *com* and *con*, was treated by Josephson and Boley in several publications (cf. Josephson 1995 and forthcoming, Boley 1992, 2000) and by Tjerkstra (1999) where the use of *-kan* and other clitics with local adverbs and cases was treated. The directive and telic function of the Hittite clitic *-san* is relevant to the question to be discussed in this paper.

In Osco-Umbrian *ad* was gradually replaced by *com*. In an opposite development, *con* was replaced by *ad* (and *in*) in a late phase of Latin. The opposition between allative and adessive *ad* and terminative *com/con* is similar to that of Hittite *-san* and *-kan*. *-san* was gradually replaced by *-kan* like Osco-Umbrian *ad* by *com*.

1. Multiple prefixation and superlexical prefixes

In my contribution to the first Celto-Slavica conference I discussed multiple prefixation in Old Irish and Slavic, the order of multiple prefixes and their local or actional functions (Josephson 2006). In discussing the order of prefixes in Slavic I brought attention to the very long chains of prefixes that are found with Bulgarian verbs and the problem of the order of those prefixes within the chain. The completive or perfectivizing function of certain prefixes in the Bulgarian chain was discussed as well as their place in the chain. I compared the function of the completive or perfectivizing Old Irish prefixes, the principal of which are *ro*, *ad* and *com* and their place in the order of prefixes. Those prefixes are goal-modifiers (cf. Filip 2003: 29) and are placed towards the end of the chain. As one of the preverbs that are used for perfectivation in Slavic is *pro-*, there is reason to compare its use with that of OI *ro* (and Latin *pro*).

Telicity as expressed by different preverbs explains the rise of Slavic perfectivity and a comparison with the Old Irish verb is appropriate. Actional functions of Slavic verb-prefixes have been much discussed in recent research. (Cf. Janda 1985 and Sasse 2002 who provides a survey of the literature). In the discussion of these elements the nature and relation of telicity and perfectivity, inner (lexical) and outer (grammatical) aspect, and the dimension of tense/aspect have been debated. Gehrke (2005) argues that Slavic verb prefixes are resultative and that quantification plays an important role. Cf. also recent publications by Arsenijević (2007a, 2007b).

In a paper which was unknown to me at the time of the Coleraine conference Istratkova (2004) made a detailed investigation of Bulgarian multiple prefixation in the context of aspectual properties of the Bulgarian verbal system. Her treatment of prefix co-occurrence and scope interaction establishes a solid base for further discussion of these problems. According to Istratkova Bulgarian verbal prefixes do not induce perfectivity but provide quantization and modify the output of AspP. *Superlexical* prefixes which have distributive, cumulative, attenuative, inceptive, completive and similar meanings occur in stacks in fixed order and function in a way that reminds of the way in which adverbs modify grammatical aspect in many languages according to the view of Cinque (1999). These superlexicals select exclusively for quantized verbs, preferably prefixed ones. Superlexical prefixes in stacks go best with accomplishments. Istratkova discusses the semantics of the individual superlexical prefixes. Two of those, *raz-* and *iz-*, share a meaning of completion but there is a semantical

difference between them *asraz* has the meaning ‘in excess’ and *iz* that of ‘completely’. *po* as a superlexical prefix has two different meanings. It is either distributive over subjects and objects or has an attenuative meaning. A distributive meaning of *po* is mostly found when a completive *iz-* is also present in an outside position and it occurs exclusively with prefixed quantized verbs. *po-* has a third, delimitative, function which does not allow for stacking. The inceptive prefix *za-* can attach outside *iz-* (as in *za-iz-po-na-razdam*) and will then override the meaning of the latter.

The adessive and allative *na-*, which in Russian indicates accomplishment or achievement and has an accumulative function was discussed in Josephson (1995:168) and its meaning was compared to that of Hittite *-san*. Bulgarian cumulative *na-*, which mostly attaches to prefixed quantized verbs (cf. Istratkova 2004: 313) does not allow for *raz-* “to the end” to follow it because they are not compatible and it does not happily allow any prefixes to follow, except for lexical ones. It attaches to quantized verbs which are mostly prefixed verbs (Istratkova 2004: 313). We can compare Hittite *-san* which is placed finally in the Wackernagel chain and is not compatible with the completive *-kan*.

While describing the fixed order of superlexical prefixes Istratkova thus provides an elegant analysis of Bulgarian multiple prefixation which will prove important for the general discussion of Slavic prefixation and for a deeper understanding of the semantic meaning of Slavic prepositions and prefixes.

2. Semantic range and function of prefixed items

In Slavic languages as in Old Irish and generally in Indo-European most verbal prefixes are also prepositions and local adverbs and the meaning of many prefixes can therefore be elucidated by a study of the meaning of prepositions and their use in combination with one or several local cases. A number of recent publications on local adverbs, prepositions, cases, verbs and particles can be consulted. Luraghi (2003) on the meaning of Greek prepositions, the works by Tjerkstra (1999) on Local Adverbs, Verbs and Sentence particles in Hittite, and Haverling (2000) on prefixed and unprefixed verbs in Latin are specially important monographs on these subjects.

We ask how closely the chain of Old Irish prefixes can be considered as a typological parallel to the Bulgarian structures. In the Old Irish chain of prefixes these are generally placed in a fixed order, though exceptions are not rare. There seems to be more possibility of variation in the OI chain than in the Bulgarian, where it is only found in few cases. We shall now take a closer look at the order of prefixes in Old Irish in combination with the semantics of Old Irish prefixes and prepositions and compare the semantics of prepositions and prefixes in Slavic and other IE languages. (Cf. Matushansky 2002: *prepositional aspect for directional prepositions*.)

Old Irish *ro* does not occur as a preposition. The related *pro-* is one of the preverbs that acquired perfective force in Slavic languages and it should be compared with OI *ro* in regard to meaning and function. The meaning of IE **pro* was ‘towards the front’ and ‘before’. Latin *pro* means ‘before’. The actional meaning of Latin *pro* is the progressive one of ‘forward from an interior place and continuing in a certain direction’, “en avant, réalisé par un mouvement de sortie ou d’expulsion d’un lieu supposé intérieur ou couvert”. Latin *re* “back” has the opposite meaning. The progressive meaning of Latin *pro-* can be equated with the perdurative function of *pro* which is a kind of quantificational meaning which the same prefix possesses in Czech and in Russian (cf. Součková 2004: 403). Hittite *para* “out, forth”, which also means ‘toward, over to’ is an original allative form of IE **per* as is Latin *pro*. Latin *per* has a perlativ meaning and implies stretching or moving along the front of a landmark. *per* as a prefix means ‘through’ and ‘throughout’. The formal relation of IE **per* and Hittite *para* is parallel to that of Hittite *ser*, which signifies a position “on top of” and “above” and *sara* which refers to direction toward a superior position. The Hittite preverb and postposition *para* means ‘over to’ and ‘on to’, with a meaning close to that of Latin *ad*, as well as a distancing ‘out from, forth’, like Latin *ab*. It can also mean ‘out of’, like Latin *ex*. (Hittite has no relative

postposition that would correspond to *ex*.) As an adverb Hittite *para* can mean ‘fully, completely’. Cf. OI *ro-* which possesses the meaning of ‘throughout’ (like Latin *per*). Bulgarian *pro-* does not occur as a superlexical prefix, but in close conjunction with a verb it means ‘through (to the end)’. Cf. OI *ro-saig*. (Hittite also shows *peran* ‘in front’ which is the opposite of *appan* ‘behind’. *peran* has the meaning of Latin *prae*.)

OI *ad* is materially and functionally related to Latin and Sabellic *ad*. It has the allative meaning of approach to an external location. Latin *ad-* functions as a GOAL modifier which indicates gradual change (cf. Haverling 2000: 276 sqq.). OI *ad* is not a preposition. The preposition with the closest meaning to it is *co* which has a Slavic cognate. Slavic is not involved in the discussion of *ad* in any significant way. Gothic has *at*. Hittite uses its versatile *para* also for this function.

Highly important comparisons can be made for form and function of the Old Irish prefix *com-*, especially the Latin preverb *con-*, the Germanic prefix *ga-* and the Hittite clitic *-kan*. It should be mentioned that *ka-* is a form of *-kan* which is found as a prefix in two Anatolian languages: Hittite and Carian.

OI *com/con* has a close semantic relation to *ad*. Both function as GOAL modifiers. Their close relation can be illustrated by historical developments in Latin and Italic. As we mentioned, Osco-Umbrian *ad* could be replaced by *com* and in an opposite development, Latin *con-* was replaced by *ad-*, sometimes also by *in-*.

The nature of the semantic relationship between *ad* and *com* should be determined. Adessive function and the allative function of approach to an external location are obvious properties of *ad*. The fundamental meaning of Latin *cum*, Gothic *ga-* and of OI *com* is that of togetherness at a point. It can refer to closure at a point and thus to a complete event. The Latin preverb *con-* may be either terminative or ingressive as it indicates “aboutissement” (cf. Moussy 2005: 243 sqq).

The inessive and illative meaning of Hittite *-kan* which is opposed to the adessive and allative meaning of *-san*, which it largely replaces in later Hittite, explains the relation of these two elements not only at the local level but also at the level of actionality. These clitics were mutually exclusive. *-kan* limits the action initially and finally (like Latin *con*) whereas *-san* brings it on to a close. The adessive and allative meaning of *-san* is similar to that of the Latin preposition and preverb *ad*, which is not present in Hittite. The relation at local and actional levels of the two Old Irish preverbs *ad* and *com* and that of their Latin and Sabellic correspondents can therefore be illustrated by the functions of the mutually exclusive Hittite particles *-san* and *-kan*.

The Slavic preposition and preverb *po-* with specific values of short temporal measurement (“a bit” of the way’) and *immediate completion* as it refers to an action that is “einmalig vollendet” can be compared to the Hittite clitic *-(a)pa* with which it shares at least one function. This Hittite clitic is another Wackernagel clitic of the kind of *-san* and *-kan* which occupy the last position in the chain of clitics. The entire semantic and aspectual range of Hittite *-(a)pa* is not easy to determine because the particle disappeared from the language at an early stage of the language and because the number of occurrences is limited (cf. Rieken 2004). *pa-* is also found as an initive preverb in Hittite (*paizzi* ‘goes off’). An enclitic *-pa* occurs in Luvian as an adversative particle with the meaning ‘but’.

Lithuanian *pa-* refers to excessive measure like OI *ro-*. In the case of **po* as well as **pro* a motion is seen as being directed to a location at a distance from the point of its initiation. As **pro* means ‘off to a distant point’ the meaning of excessive measure is perhaps more obvious for this element than for *po* which indicates that the action stops at a point which is not at great distance. The meaning of **pro* is the perlative and allative one of Hittite *para* ‘on to, out to, over to’ and ‘forth to a distant point’. The point at which an action qualified by *pro-* reaches its completion is not situated at the close range indicated by *po-* and *pro-* does therefore not possess the aspectual particularities that belong to *po-* which are connected with the signification of immediacy and short distance.

In addition to adjacency and direction to a position of adjacency the initiation of a wayward motion is part of the semantic range of *po-*. This is one of the meanings that belongs to Slavic *po* and Baltic *pa-* and that is found in the directional use of Hittite prefixed *pa-* ‘off’ which occurs with a number of verbs. It is opposed to *u-* “back” as in the case of the verbs *paizzi* ‘goes off’ and *uizzi* ‘comes’. Cf. Latin *po-* in *pono*. The Slavic preposition *po* has extensional, perlative-distributive as well as ablative meaning and can be accompanied by several different cases. The ablative function of **po* explains the adversative meaning of Luvian *-pa* ‘but’. Cf. the meaning of Greek *apó* ‘off, from, away from’ which when not connected with motion indicates position at some distance from the point of origin. This explains its completive function and the exhaustive transformative function of Hittite *-(a)pa* (cf. Johanson 2000: 69) and Russian *po* (Tatevosov 2003: 876). In my earlier Celto-Slavica paper I mentioned the exhaustive transformative function which is common to Russian *po-* and Hittite *-(a)pa* as in *s-an-ap atanzi* ‘they eat him (up)’.

Součková (2004) argues that there is only one *po-* in Czech as in other Slavic languages with the constant meaning of extensive measure. Cumulative *na-*, distributive *po-*, perdurative *pro-* and delimitative *po-* are all quantificational prefixes that quantify over different things. *po-* measures an event, and by measuring it, delimits it (op. cit. 410) when it was not delimited before. When the event is already delimited *po-* only measures it, without delimiting it again.

We mentioned that the inessive and illative meaning of Hittite *-kan* explains its initially and finally limiting function when it refers to verbal action and that the adessive and allative meaning of *-san* explains its telic function which we compared to the function of *ad*. IE **som* and **h₂ed* are semantically close as they both indicate a position close by.

The Greek preposition *sun* refers to comitancy and accompaniment (cf. Luraghi 2003:320) It possesses no local meaning. As a preposition it disappeared very early and was replaced by *metá* but it was very productive as a prefix. As a prefix it possessed the completive function that is one of the functions of Latin *con-*, Gothic *ga-* and OI *com*. Cf. *sunerkhesthai* ‘to meet’. The translation of Greek *sun* by *con-* is, however, a late phenomenon in Latin.

Slavic has the preposition *s, so, sun* (Baltic *san(-)*) which expresses association when used with the instrumental case but can refer to a goal when found with the accusative. It indicates separation when accompanied by the genitive. Its allative meaning explains its telic function and its development into a perfectivizing preverb. Slavic shares this element with Greek but not with Latin. The Slavic preposition *k-, ko-* which occurs with the dative case should be seen as related to Latin *con* and Hittite *-kan*. Slavic thus preserves prepositions that are cognates to the Hittite clitics *-san* and *-kan*.

3. The order of prefixes in Old Irish

The fundamental order of preverbal prefixes in OI primary composition shows *to-* in initial position. *for, fris, eter* and *imb(e)* share the second position. *fo, ess* and *in(de)* belong to the second slot according to the revised opinion of McCone in the second edition of his book on the Early Irish Verb (1997: 90). *ad, ath, ar* and *de/dí* are placed in third position, *com* and *ro* in the fourth. *uss* and *ne* belong to the fifth and final slot. We observe that *ess* and *in* which sometimes have the same completive function as *ad, com* and *ro* are not placed in the fourth position of *com* and *ro*. *ad* which can have a completive function like that of *com* and *ro* belongs to the third position and not to the fourth which is occupied by *com-* and *ro-*.

to is an introductory particle. *ta-* which is a sentence introductory particle in Hittite that can be followed by Wackernagel clitics, including *-kan* and *-san*, easily comes to mind. The reasons for the place of the other prefixes in their respective slot will have to be explained and the investigation will start by determining common semantic traits of prefixes that share a common slot.

The preposition *for* means ‘on, over’ and ‘in addition to’. It indicates external position and adjacency and occurs with the accusative and the dative cases. It is semantically similar and etymologically related to Greek *hupér* and Latin *super*. The Greek preposition retains a

vertical orientation when it occurs with the genitive case. Together with a non-directional accusative it denotes multiple path or location of a multiplex trajector above a landmark. With a directional accusative it has the meaning of ‘over or beyond a certain landmark’. (Cf. Luraghi 2003: 214). Like Greek *hupér*, OI *for* does not refer to approach or distancing motion. When used as a prefix in primary composition it is placed before dynamic prefixes of external location such as allatival *ad* and ablatival *de* which indicate destination or point of departure.

fri ‘facing, against, alongside, next to, beside’, ‘en face, à la rencontre’, has the meaning of Latin *ob* and *adversus* (which replaces *ob-* as in *officio* ‘faire obstacle’, with the opposite meaning to that of *proficio* (cf. García-Hernández 1994: 30). *fri* is etymologically related to the second element of *adversus*. It occurs with the accusative case. The form of the corresponding prefix is *frith* or *fris* ‘against’. Like Latin *ob-* and *adversus*. OI *frith*, *fris* “marque la position “devant” une limite orientée” (García-Hernández 1994: 30) and does not refer to approaching or reaching a fixed limit.

As a preposition, *eter* ‘between, among’ is found with the accusative case only. Like its Latin cognate *inter* it has the fundamental meaning of intermediate position between anterior and posterior. It indicates reciprocal relations and contact and can refer to passage between or passage by. Hitt. *istarna* has the same range of meanings. When a passage is seen as transcending a limit *istarna* is accompanied by the clitic *-kan*.

imb(e) ‘around, about, mutually’ also occurs with accusative only. It corresponds in meaning and form to Greek *amphí* which occurs with dat. and acc. and means ‘on both sides’. *amphí* did not get the meaning of ‘around’ before Posthomerian times (Luraghi 2003: 318).

The verbal prefixes *for*, *frith*, *eter* and *imb(e)* which occupy the second slot in the order of prefixes are neither source- nor goal-oriented.

As a preposition, *fo* ‘under, beneath, towards, around’ is found with acc. and dat. It can be directional as well as locational. Cf. the related Latin *sub(-)*, preposition and preverb, which is allatival and ascendant (García-Hernández 1974: 35), Greek *hypó* and Sanskrit *upá*. The antonym of Latin *sub* is *de (-)* which is ablatival and ascendant.

ess ‘out of’ (with dative) is elatival (exit from an internal location) and not directional.

in(de) which occurs with acc. and dat. can be illatival ‘into’, referring to entry into an internal location.

Adessive and allatival *ad* (external location and approach) is goal-oriented with the verb. Ablatival *de* (with a distancing function: “éloignement de l’extérieur”) is source-oriented and signifies from a limit.

a(i)th is ablatival and elatival like Latin *re-* and *ex-* and refers to “dépassement d’une limite”. It is related to Sanskrit *ati* and Greek *eti* and probably also to the Anatolian ablatival ending **-ati* (Hittite *-az*). *<*-oti*. *a(i)th-* is a prefix but is not found as a preposition.

ar ‘before, in front of, for, towards’ occurs with the dative when used as a preposition. (Cf. the etymologically related Greek *pará* which occurs with three different cases.) It denotes spatial relations based on proximity and has directional meaning with motion verbs.

The typically completive prefixes *com-* and *ro-* are placed in the fourth slot after the aforementioned third position prefixes. *com-* and *ro-* are also found in other positions and with other functions. There is a fixed and a movable *ro-* and a prefixed *ro-* in cases where a *ro-* is already present in the compound.

ad can have a marked completive meaning of the same kind as fourth-positioned *com* and *ro*. When it occurs together with *com-* the completive *ad* is placed after *com*.

ne (ni) and *oss-* (in fifth position) occur only in close composition and are not found as prepositions though *ós* is the form of a preposition used with the dative. *ne* is only found in position immediately before the verb and only with a limited number of verbs. (Completive *ro* may occur after *oss* as in *túargab (to-oss-ro-gab)*). There is reason to believe that *ne* and *oss* are lexical prefixes of a specific nature, having no part of *prepositional aspect for directional prepositions* as discussed by Matushansky.

4. Multiple prefixes in Latin

ad- or *in-* in front of Latin *-sco-*verbs indicate that the action starts and goes on for a while. *ob-* refers to sudden entrance into the action and *ex-* indicates that the action is brought to an end. (Cf. Haverling 2000: 392-393.) *con-* is used for completivity and has a terminative or an ingressive meaning. (Cf. Haverling 2000: 252-267, Moussy 2005: 243sq., Gaide 2005: 265-267). In the course of the historical development of Latin, *ex*, *ob* and *con* lost their function as actional prefixes but *in* and *ad* retained their dynamic function. (Haverling 2000: 393.)

sub- has an attenuative function as in *subpudet*, *subirasco* (ibid., 388). Combinations of two prefixes are found in Latin and *super-* is of common occurrence before another prefix as in *superinungere*. In a late verb *superexresco*, *super* is obviously a superlexical prefix (ibid., 385). *per* normally indicates a process of superior degree as compared with the simplex verb. (Cf. van Laer 2005: 321sq.). One instance of the peculiar *persubhorrescere* occurs in a quotation from Sisenna (Haverling 2000: 389, 456). Haverling does not think that this reading should be accepted. *per+sub-* in that order is a strange combination from a semantic point of view as *per* refers to a superior degree and *sub* is attenuative. (Cf. Istratkova 2004: 315: “nothing seems to be able to stack on top of attenuative *po-*”.) Combinations of two prefixes are unusual in an early period of the Latin language but there are examples in Latin of *per* followed by another prefix such as *perdesino*, *perobligo*, *peroccido*, *perinjungo*, *pertranseo*, *percognitus*. Cf. German *über*, *unter* ‘too much’, ‘too little’ which are ‘scalar’ preverbs (McIntyre 2000: 48).

5. Telicity and resultativity

Hittite enclitic *-kan* is placed at the end of the Wackernagel chain and possesses functions that are similar to those of Latin completive *con-* and Gothic *ga-*. The OI prefix *com-* which has a similar completive and possibly perfectivising function is placed in fourth position close to the verb and completive *ro-* has the same place and function.

According to the view of Istratkova Bulgarian has no perfectivising prefixes for the reason that aspect is expressed in a different way. Imperfective verbs are formed by suffixation as is normal in Slavic and Bulgarian possesses an aspectual aorist. Superlexical prefixes play a great role in Bulgarian and have greater productivity than in Serbo-Croatian. There is no Bulgarian, nor indeed Slavic, prefix related to *-kan* and *com*.

Attenuative *po-*, which can also be distributive, is one of the Bulgarian superlexical prefixes. *-(a)pa*, like *-kan* and *-san* which has an actional meaning close to that of Greek *sun* and Sanskrit *sam-*, belongs to the verb-modifying Wackernagel particles of Hittite. Like *-kan* and *-san*, *-(a)pa* is placed at the end of the Wackernagel chain. It is neither attenuative nor distributive but can be completive like the non-stacking variety of Bulgarian *po*. Fundamentally there is only one *po-* (cf. Součková 2004). Arsenijević (2007b) makes a unified analysis of internal and external Slavic verb-prefixes which explains similarities between the two classes of prefixes “which are expected if they are generated in the same template”: (perfectivity is then just a particular realization of resultativity and telicity)” The differences are accounted for in terms of the arguments of the template. External Prefixes scope over the suffix and over Internal Prefixes because they are generated higher in the structure. It is the property of quantity that is affected in the structure generating External Prefixes. Arsenijević tentatively suggests that all prefixes have prepositional meanings but cannot quite explain why and how prepositional meanings can derive quantificational interpretations. The views of Arsenijević are, however, highly important. There is reason to emphasize his remark about (Slavic) perfectivity as a particular realization of resultativity.

Indo-Iranian and Greek are languages that possess a functional aorist but Italic and Celtic languages lost the aorist as an independent category and Germanic shows no trace of an aorist. The ancient Anatolian languages do not possess an aorist. Those Slavic languages that lost the aorist make use of preverbal prefixes for systematic perfectivisation though the prefixes retain much of their actional and lexical values. Other IE languages that lack an aorist are prone to use verbal prefixes of strongly completive meaning (Gothic *ga-*, Latin *con-*, OI

com and *ro*, the enclitic *-kan* in Hittite) in a systematic way as finally and initially limiting modifiers of verbal action. They may in cases be plausibly interpreted as possessing a perfectivising force. When resultativity and telicity are strongly involved the prefixes tend to approach an outer part of the area of stacking and perfective meaning can subsequently arise as a result of their resultative and telic meaning.

6. Multiplication of prefixes

Bulgarian felt free to multiply superlexical prefixes practically in absurdum and there are similar tendencies in other South Slavic languages. The order of superlexical prefixes in stacking is quite regular in Bulgarian. There are some weaker tendencies to multiplication of prefixes in Greek, Latin and Germanic where lexical aspect is sometimes involved. Only Old Irish provides a parallel to extensive multiple prefixation.

In position after a number of prefixes which refer to path, reciprocity and internal location OI shows a great number of directional or initially or finally limiting prefixes which are placed in a complicated internal order which allows for variation and repetition of a prefix to a higher extent than is allowed in Bulgarian.

Completeness plays an important role in the positioning of prefixes at or towards the end of the OI chain of prefixes in a way that has no obvious parallel in Bulgarian, but clearly exists in the Anatolian Wackernagel chain of clitics.

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