OLD IRISH AND SLAVIC PREFIXED VERBS
AND THE FUNCTION OF PREFIXES

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0. Introduction
The long chain of verbal prefixes commonly found in the Old Irish glosses is a phenomenon that should be studied in the broad context of cliticisation. The normal order of the prefixes has been investigated (cf. McCone 1997: 89-93) and cases of irregular order have also been observed. The verbal prefixes are homonymous with prepositions of known meaning and origin. The exact function of the prefixes as they are found in a chain is not always clear, nor is the reason for the order in which they occur. It would be interesting to know in what order the different prefixes were added to the chain in the process that McCone (1997) calls “primary composition”. “Secondary composition”, in the terminology of McCone, is found in calques on Latin compounds but also occurs in native compounds, as when a preverb is prefixed to a pre-existing prefixed or non-prefixed verb. This phenomenon did not necessarily arise at a late period.

1. The Old Irish prefixes ro-, com- and ad-
It is well known that strongly telic prefixes such as ro-, com- or ad- could be affixed (or sometimes prefixed) to an existing chain of preverbs in order to indicate that an act or a state is seen as completed (Thurneysen 1946: 341ff). These telic prefixes have been understood as indicating perfective aspect, but have also been said to form a perfect. With verbs in the present tense ro- and com- are of modal meaning and indicate possibility or ability.

According to Thurneysen (1946: 344) cot-n-omalt (LU 9072) which belongs to conmeil ‘grinds’ suggests that oss- may be used in the same way as ro-, com- etc.

Old Irish friscom-org- (beside frisoiric ‘injures’) has an infixed com as does dové-com-nacht ‘has bestowed’ where com has been added to doind-naig. This is also the position of the so called fixed ro. inr-úa-lad ‘I have entered’ shows a similar process in the case of ro, which has been infixed in second position, -r-ind-úa-lad (ML. 93cl4) ‘thou hast entered’ shows ro-
in a different position.\(^1\) A doubling of ro- occurs with some verbs where this preverb is joined to a compound which already contains a ro-, in which case the second ro- is prefixed to the entire compound as in the negative form ni-ru-de-r-choin. (Thurneysen 1946: 346).

Though the local meaning of most prefixes is often obvious, the question sometimes arises whether a certain prefix when found in a chain is of local/directional or actional nature.

Chains of four prefixes which do not contain any of the strongly telic prefixes ro-, com-, ad- or ess- are common, as in fo-ind-ar-uss-ben. Such chains are also found in nouns such as intururas ‘incursion’, which shows the four prefixes ind-to-air-uss- in front of -ress (Thurneysen 1946: 495). comtherchomracc ‘assembly’ shows five prefixes (com-to-er-com-ro), followed by the verbal stem icc. This example shows doubling of a prefix, as does in-t-in(n)-scanna ‘begins’ beside do-in-scana (Thurneysen 1946: 519-520). In certain cases, doubling may possibly have been caused by accent (Thurneysen 1946: 351), but there may be other reasons for this phenomenon which have not been satisfactorily explained. In the cited examples we find an actional prefix in so-called secondary composition in front of to-, a preverb that otherwise most often stands in first position as an introductory particle to a chain of preverbs.

The presence of two or more prefixes is a well-known phenomenon in different Indo-European languages. Homeric Greek hup-ek-pro-rhei shows a logical order of prefixes. The water is said to be running up, out (of the ground) and forward, cf. Old Irish do-eprannat, glossing affluant, (Ml. 39b2) which is a form of do-ess-brenn. doecmalla ‘gathers’ and tu-e-r-c(h)om-lassat (Wb. I 7a7) (cf. Thurneysen 1946: 519) also show the sequence to-ess-, which latter is followed by ro- ‘forward’ (just as -ek- is followed by pro- in the Greek example) and by com in final position. That com when found in final position need not be the “aspectual” prefix (or augment) is also shown by doecmalla ‘gathers’ with its verbal noun tecmallad.

2. **Multiple prefixation in Slavic**

Multiple prefixation is a common trait of Slavic. It was recently discussed by Filip (2004) who stresses the problematic nature of prefixes as grammatical (inflexional) markers of perfective aspect. She also discusses

\(^1\) Cf. Thurneysen (1946: 339-341) on fixed and movable ro-.
their behaviour as directional prefixes. Most of her examples are from Czech and contain two or at most three prefixes. For our purpose it will be more interesting to adduce the facts of Bulgarian where the chain of prefixes can be longer and may contain up to five of them. Questions that arise in regard to the Bulgarian chains are therefore similar to those that are relevant to the Old Irish chains both as to the function of the prefixes and their position in the chain. There are similarities but also important differences. In this paper I will mainly discuss the problem of the function of the prefixes in the chain.

In Bulgarian, pri-do-ida and pri-do-bija are not very difficult to analyse. A sequence such as iz-po-pre-bìvam is more complicated in regard to the function of iz- and po- and also in respect to the order of prefixes, with po in second position.

The function of po- when placed initially in a chain of Czech preverbs was discussed by Filip (2003: 11). In po-od-sednout si it measures the extent of the path (Filip 2003: 12 and 14). In this verb, od- is used for path delimitation and the verb which is prefixed by od- serves as a base for further prefixation with po-, which “adds the measurement meaning of attenuation in a variety of ways”, as Filip says.

In Bulgarian, where izpoprebìvam and izponaprikàzvam show four prefixes, iz- may theoretically have been prefixed to a pre-existing verb beginning with *po- but this is not necessarily the correct interpretation. Izprebìvam also exists, izpoprebìvam shows an actional iz- in initial position which is the natural place for actional prefixes in Slavic languages. It is followed by the likewise actional po-. The common sequence izpo- has sometimes been analysed as one entity. It should, however, be observed that po- seems to have kept the distributive meaning which is one of its semantic properties.

A po- of distributive meaning is found in Czech ponavypravet which was formed by preposing a distributive po- to an augmentative na-. The verb refers to telling a lot of stories at separate times (Filip 2003: 42). The order *na-po- never occurs.

In the Czech verb po-po-sednout si po- (or popo-?) means ‘a bit’. There is no *po-sednout si with attenuative po- according to Filip (2003: 32 n.21). It is, however, possible that a path indication by po- may have been felt as necessary for a po- of measurement to be applied. In popostrìcit
'push a bit forward', the first po- implies a reduction of the forward movement which is indicated by the po- of postrīcit 'push forward', ‘give a push’, cf. also posedavat 'sit around', ‘lounge’ and posposedavat ‘be edging all the time’, ‘fidget’, with a different interpretation of po- with the imperfective verb. Though popo- is similar to the Bulgarian izpo-, it is obvious in this case that the first po- has been prefixed to a verb containing the second, a process which implies further refixation of the same element with a different function.

According to Filip the perdurative pro- does not occur with the perfective verb sednout si because pro- delimits the event in time and the perfective base contains information that delimits it in space. There is a rule that only allows one delimitation per event (cf Filip 2003: 32). It may, however, be applied to the imperfective verb sedet. pro-sedet has the meaning ‘spend a long time’.

The preverb po- indicates a shorter measure of time than pro-. In Lithuanian, pa- is the most common of those prefixes that indicate a limited measure of time, but pra- and other prefixes may also be used in a similar way. Completion is envisaged with all of them. They yield what has been called perfective aktionsart in Lithuanian grammars like that of Senn (1966). pa- is the most common prefix of those that serve “zu Bezeichnung einer einmaligen vollendeten Handlung” (Senn 1996: 449). In OI the most common of the prefixes that possess that function is ro-. Furthermore, Lith. pa- indicates excessive measure as does OI ro-. Lithuanian pa- possesses a modal function as does OI ro-. adro-darcar means ‘can be seen’.2

Doubling of prefixes is found in Bulgarian as in Old Irish.

Katharina Böttger in a recent article (2004) discusses grammatical and lexical derivation, grammaticalisation and the Russian aspectual prefixes po-, za- and ot-. This article has an important diachronical perspective.

According to Böttger (2004: 187) the development of aspect in Russian does not fit with the current definition of grammaticalisation. It is a special case of grammaticalisation which implies “a change from lexical to grammatical status without change of external form” (Lehmann 2004). Russian aspect is a derivational grammatical category. The main grammatical function of the perfective is actual or episodic as the action is seen as completed or as an entire act as per Lehmann (1999b: 219-221), (cf. Böttger

2 The perfect of this verb shows com-, not ro-: ad·com-darcar (Tur. 59).
On the lexical level most verbs can be distinguished according to the criteria of telicity and phase (Böttger 2004: 189). Prefixes with the meaning of completion such as \textit{s-}, \textit{vy-}, \textit{po-} and \textit{pro-} are perfectivising preverbs which have purely or nearly purely aspectual meaning (Böttger 2004: 190). \textit{za-} and \textit{ot-} have \textit{phasal} function, where \textit{za-} refers to the beginning phase and \textit{ot-} to the phase of ending. According to Lehmann \textit{zapet}\' is formed by grammatical derivation. The derived imperfective \textit{zapevat}\' is formed by secondary suffixation and is lexically derived. \textit{po-}, when having the temporal meaning of ‘a while’, is \textit{delimitative} and is restricted to atelic and telic/atelic verbs. Aspectually derived verbs keep their lexical meaning.

Lexical prefixes often carry spatial meaning. They render imperfective verbs perfective, but these perfective verbs are not aspectual derivatives. When verbs of this kind have a new lexical meaning a grammatical derivation of an imperfective partner is necessary (Böttger 2004: 192). The common Russian prefixes \textit{na-}, \textit{ot-} and \textit{za-} carry spatial and temporal as well as aspectual functions. \textit{po-} is also a prefix with spatial, temporal and aspectual functions: \textit{ponesti} ‘carry away’ has a spatial (lexical) \textit{po-}, \textit{poplakat}\’ ‘cry a while’ has a temporal and grammatical \textit{po-} but in \textit{pozvat}\’ the prefix is purely aspectual (grammatical).

In Old Russian, the prefixes were polysemic and had only spatial meaning: \textit{u-} meant ‘on’ and ‘near’, \textit{za-} is ‘behind’ and ‘at’, and \textit{ot-} meant ‘away’ as well as ‘off’. \textit{po-} seems to have meant both ‘away from’ and ‘to’ (“space of extension without filling it up” according to Delbrück). At a later period many of the functions were abolished and even in the following period of Russian language history a grammatical function had not yet fully developed.

Purely atelic verbs like \textit{pisat}\’ cannot have spatial bounding (Böttger 2004: 198). If such verbs were to be bounded without a change of semantics they had to be bounded temporally, the phasal function could thus arise (Böttger 2004: 199).

Filip (2003) in her article ‘Prefixes and the delimitation of events’ also considers the prefixes to be derivational morphemes, but does not see them as formal markers of perfectivity. The action of a prefixed verb may be quantised, telic or bounded.
3. The functions of Russian aspectual prefixes in the light of other Indo-European languages

The “directional and measurement usages” of Slavic prefixes were studied by Filip (2003). Many of these prefixes, but not all, are of prepositional or adverbial origin. They serve as SOURCE/GOAL modifiers. The telicity status of the prefixed verbs depends on the spatial orientation encoded in their directional prefixes. Filip (2003: 29) stresses that only GOAL modifiers form quantised events and are quantised perfective verbs (Filip 2003: 32). Perfective verbs with SOURCE-prefixes are not quantised (Filip 2003: 34).

If we compare this to relevant traits of OI we find the following situation:

Old Irish ad - has the meaning of ‘hereto, thereunto’ and ro - can mean ‘up to the end of’ as in ro-saig ‘reaches’, com- means ‘together’ and ‘completely’. They indicate direction and measurement and they are all GOAL modifiers.

In Latin there is an interesting relation between the goal modifiers ad- and con- where ad- indicates gradual change as in adsuesco ‘get more and more used to’ as against consuesco, in which completive con- indicates achievement (Haverling 2000: 256). In early Latin, a number of common sco- verbs are always prefixed by con- (consuesco, conticesco, concupisco) or by some other prefix as in the case of obdormisco (Haverling 2000: 138). The presence of the dynamic sco- suffix and a prefix is necessary to indicate a change from one state to another in verbs such as conticesco ‘stop talking’ and condormisco / obdormisco ‘fall asleep’.

Long chains of clitics occur in several other Indo-European languages. Hittite possesses long chains of enclitic particles in the so called Wackernagel position at the beginning of the sentence. Chains of clitics in Wackernagel position are found in Romance languages where the clitics involved are normally pronouns. It has recently been discussed whether these should be considered as belonging to the syntactic or the lexical domain, cf. especially Gerlach (2002) which is mainly about pronominal clitics in Romance. It contains an interesting treatment of terminological problems concerning the difference between clitics and affixes. The discussion also concerns the order of clitics, clitic placement, cases of deviation from the normal order of clitics and the problem of clitic doubling.
Most of the Wackernagel clitics in the Anatolian languages are pronominal but those that occur in final slot are of directional or deictic origin and modify the actional content of the verb. In Hittite, those clitics are -kan, -san, -(a)sta and, in the older stages of the language, two more: -(a)pa and -an. Some, but not all, of these directional elements are etymologically related to IE local adverbs, prepositions and preverbs. Hittite -kan is related to Celtic com- and Latin con- and Hittite san to Sanskrit sam-. -(a)pa may well be related to Slavic po-. -(a)sta is of uncertain origin, but it may contain the element -ta which serves as the Luwian equivalent of -kan (cf. Josephson 1997). Moreover, ta(-) is one of the Hittite sentence introductory particles which are frequently followed by the Wackernagel clitics. The most common of these introductory particles is nu(-).

In Hittite, the chain of clitics may be introduced by an introductory nu-, ta- or s(a)-. The order of clitics in the Wackernagel chain is as follows:

1. quotative or explicative -wa(r)
2. the 1. and 2. pl. oblique clitics -nnas, -smas and the 3. pl. dative clitic -smas
3. subject clitic 3. person: common gender sing. -as, or DO (accusative) clitic sing. -an. The plural forms are Subject -e/-at DO -us/-as and Neuter sing. -at, with plur. -e/-at in both functions. (The Subject clitic is not used with transitive verbs.)
4. 1. and 2. sing. oblique clitic -mu, -tta/-ddu and 3. sing. dative clitic -sse/-ssi
5. the reflexive particle -za
6. the “sentence particles” -kan/-san/-((a)sta/-((a)pa/-an.

The modal clitic -man is placed before the other clitics. So are the conjunctive -(y)a “and”, the focus marker -a /-ma ‘but’ and the identifier -pat. These clitics commonly cliticise to non-sentence-initial words.

The particle -kan, which is etymologically related to Latin con-, can limit the action initially as well as finally. The function of the Latin preverb con- is similar to that of Gothic ga- as the action of the con- verb may indicate the term without being seen as complete. In Hittite, another particle, -san, is used for direction towards an ultimate term, whereas -kan is only used to indicate a complete event. Only -kan is the marker of punctual occurrence, initial limitation and a complete event.
An initially limiting -kan is found with para ‘forward’ in the combination para-kan. Thus, para-kan pawar ‘going forward’ has the sense of ‘departure’ and corresponds to Akkadian ŠITU ‘exit’ in a plurilingual lexical text. an da-kan pawar ‘going in’, ‘entrance’ is also found in a lexical text. The same combination (Celtic *ande-com-) is probably found in Welsh dangos “show, teach, indicate” and in OI *do-inchosaig (*to ande kom sek*-), dorindchosaig (LL 287a35) as suggested by Lindeman (1994). The Celtic sequence *ande com-, which is that of Hittite anda-kan, is also found in Gothic inn-ga- as in inn-ga-leipan (cf. Josephson 1996: 172 and Josephson 1997). ga- indicates telicity. An action qualified by ga- may be seen as directed towards a term and as being of cursive nature, but it can also indicate resultative manner of action and a complete event as does Hittite -kan. The stress is, in this case, placed on the reaching of a term or the passing of a limit.

We may observe the functional similarity of ga- and -kan to Latin con-. In Hittite, a prefixed ka-, which is probably a shorter ablaut form of -kan, (< *kom) as is Gothic ga-, is found in the verb kappuwai- ‘count’, a verb that corresponds exactly in structure and meaning to Latin computare.

In Russian studies, the notion of lexical aspect has come to the fore in recent years as I mentioned in Josephson (1995: 167) with reference to studies by W.D. Klimonow and H.R. Mehlig. Johanson (2000) as well as Bertinetto and Delfitto (2000) emphasised the aktionsart character of Russian aspect. Recently, an aktionsart character of Russian aspect was mentioned by S. Tatevosov (2003: 881) in a study of the Russian delimitative po-: po-fails to quantise the predicate, which is also true of the prefix no- (Tatevosov 2003: 885) with reference to the study by Filip (2000). It is interesting to note that the Old Hittite clitic particle -(a)pa sometimes seems to have the totalising function of an exhaustive transformative (consumative) character of the kind described by Johanson (2000: 69) as in s-an-ap atanzi ‘they eat him (up)’ (KUB III 60 II 5) or s-an-za-pa assu saw[a... ‘fill him up with good’ (KBo XII 18, 6). Compare one of the functions of Russian po-: “Verbs containing completive po- just refer to situations that attain a resultant state without any further qualificational or quantificational refinements” (Tatevosov 2003: 876). Russian po-verbs may also be gradual completion verbs as pokrasnet ‘redden’ (Tatevosov 2003: 877).
Russell (1985) studied the aspectual properties of the prefix *na-* as well as its semantics and the lexical aspect of verbs prefixed by *na-. It has an adessive and allative meaning which is in fact similar to that of Skt. *sam-*, Greek *sun-* and Hittite *-san* (Josephson 1995).

Russian *za-* was analyzed by Janda (1985) as being a trajector that indicates deflection and fixation in the extradomain. The notion of fixation inherent in the sense leads to a meaning of change of state. It may be noted that the Hittite directional particle *-(a)sta* seems to have the exact function mentioned by Janda for Russian *za-* (cf. Josephson 1995). In his analysis, Janda refers to the cognitive model of E. Rosch, who sees time as a subcategory of cognitive space.

We have seen that Böttger (2004) discusses grammatical derivation beside lexical derivation, grammaticalisation and the Russian aspectual prefixes *po-, za-* and *ot-* in a diachronical perspective. According to Böttger (2004: 202-203), it is possible to deduce from the most developed prefixes of modern Russian *za-, po-* and *ot-* in their function as grammatical formatives together with the lexical verb stem that they first had mere spatial function, then gained aspectual function and finally in part also temporal function.

This view seems to be relevant to Old Irish *ro-, com-* and *ad-* , which retain their status as lexical and grammatical formatives, as the Russian aspectual prefixes to the present day. “Which affixes are applied on a verb stem depends on the lexical-actional character of the verb stem” (Böttger 2004: 202). It remains to be investigated to what degree this is applicable to OI.

German is a language which shows multiple prefixation. *vorveranschlagen,* and *nachbeantragen* are examples of this kind. *ver-* and *be-* are here applied to a denominal verb which is subsequently prefixed by a prepositionally derived verb-particle. For this term, which also applies to the deictic verb particle *hin-*, which has directional power, but not to *ver-* and *be-* (cf. Abraham 2003: 37, n. 5). *ver-* and *be-* have verb-prefix status. There is a clear conceptual difference between verb-particle status and verb-prefix status (cf. Abraham 2003: 37, n. 5).

Talmy, Slobin and others distinguish between satellite-framed and verb-framed languages. For a discussion of this distinction, which was coined by them, I refer to Berthele (2004). In satellite-framed languages the path of motion is expressed in a verb particle and the manner of motion
in the verb (*movement*) according to Tesnière\(^3\)) whereas verb-framed languages express the path in the verb of *displacement* such as *monter* or *sortir*. According to Talmy, a *motion event* (Berthele prefers the term *spatial localisation event*) integrates a series of conceptual components: figure, activating process, association function and ground. The following sentences are analysed: *the cup is on the table*, and *the linguist is running into the library*. The *figure* is the object that is going to be located or traced in space (*the cup, the linguist*). The *activating process* can have the parameter of fixity or transition (*is, or is running*). The *association function* relates the figure to its spatial environment (*on, into*). The *ground* is the spatial environment into which the figure is statically located or moving (*the table, the library*). In some cases, the association function can be seen as the core schema without specification of the ground (as in *fell down*). If the association function (which equals the path) is not mapped onto the verb it is expressed by a satellite such as a separable or inseparable verb-prefix in German.

Russian, which is a typical satellite-framed language, shows a large number of adnominal distinctions (prepositions and case-marking) as such languages do but it also has a great frequency of adverbal encoding by verb affixes and verb particles, which is also a normal strategy in many satellite-framed languages. According to Berman and Slobin (1994) satellite-framed languages tend towards greater specification of manner. English and German are characterised by dynamic path and manner description (Berman and Slobin 1994: 118-119). German has a great deal of prefixation. One Slavic language, Bulgarian, shows an especially great proliferation of path description by means of prepositionally derived verb-particles some of which, such as *po-* have directional and measurement power. They are delimitative and may therefore also have quantising and totalising force. When they are used because of these properties they are conceptually similar to those German elements that Abraham qualifies as verb-prefixes. In Slavic languages, they are normally placed in front of the chain of path and place arguments that precede the verb.

\(^3\) For instance, *marcher* or *courir* are such verbs.
4. Conclusion
We have seen that the position of actionally used telic affixes in the chain of prefixes is different in Old Irish, where they are usually placed at the end of the chain in cases where they were chosen because of their strongly telic meaning, and in Slavic, where such affixes were placed initially and could be used for grammatical derivation and for expressing Slavic perfective aspect. There are also differences as to the order in which affixes are applied in lexical derivation. The possibility of using multiple prefixes which are originally local adverbs existed in Indo-European, as we have seen in Greek. Old Irish within Celtic and Bulgarian among the Slavic languages use this possibility to a full degree. The development of actional preaspectual or aspectual function of prefixes which came about in Celtic, Baltic and Slavic as well as in Latin has a parallel in the Anatolian languages which show affixes that are partly of the same origin as affixes of Celtic and Slavic with which they have strong functional similarities. In Anatolian, they are normally placed in the last slot of affixes in the Wackernagel position at the beginning of the sentence. Several of them are clearly of deictic, locational or directional origin and some may be used together with local adverbs and be placed in positions other than the Wackernagel position. The fact that these affixes are found in Anatolian at the end of the Wackernagel chain after the pronominal particles whereas nothing similar occurs in Romance chains may have to do with the verb-framed character of Romance languages, which accordingly do not express path by means of a particle.

The typological importance of the observed functional similarities and differences between Old Irish and Slavic within the Indo-European context is obvious.

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Abbreviations
LL – see Best et al. 1954-83.
KBo – *Keilschrifttexte aus Boghazkøi*. Leipzig 1916-23/ Berlin 1924-
KUB – *Keilschrifturkunden aus Boghazkøi*. Berlin 1921-
Ml. – ‘The Milan Glosses on the Psalms’ (see Stokes & Strachan 1901: 7-483).

SUMMARY
ФОЛКЕ ЙОЗЕФСОН

ДРЕВНЕИРЛАНДСКИЕ И СЛАВЯНСКИЕ ПРЕФИКСАЛЬНЫЕ ГЛАГОЛЫ И ФУНКЦИЯ ПРЕФИКСОВ

Статья представляет сравнительное исследование целевых префиксов в древнеирландском и славянских языках. Длинная цепь глагольных префиксов, обычая в древнеирландских гlossenках, является феноменом, имеющим параллели в славянских языках. Известен правильный порядок древнеирландских префиксов. Префиксы омонимичны предлогам и соответственно имеют частные значения. Тем не менее точная функция префиксов в этой последовательности не всегда очевидна. Некоторые из префиксов являются целевыми и имеют ослабленное частное значение. Автор исследует логику, лежащую в основе префиксальных отношений. Также выделяется типологическая значимость замеченного функционального сходства и различия между ирландскими и славянскими префиксами в индоевропейском контексте.