Chapter 7

Clitic Climbing in Polish Verb Clusters: an HPSG Approach

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ABSTRACT. The aim of this paper is to compare clitic climbing (CC) in Polish and Romance and then provide an HPSG account of CC in Polish. We discuss CC in the complementizerless verbal complexes, which we call verb clusters (VC). Both the behaviour of Polish clitics and properties of VC are different in Polish and Romance. Although we apply ('standard' for HPSG) lexical encoding to account for CC, our analysis differs from those proposed for Romance. We treat Polish clitics as syntactic items and assume that they can be realised independently of other arguments. This allows us to account for optionality of Polish CC and simultaneously preserve the underlying syntactic structure of VC.

7.1 CC in Polish and Romance

In Polish, as in Romance, CC is possible only in certain environments. In this paper[1] we discuss the interaction of pronominal clitics with infinitival complementation.[2] In Italian, CC is possible with 'restructuring verbs', cf. e.g., [Riz82], while in French, causative verbs such as *faire* 'make', may attract clitic arguments of their infinitive complements, cf. e.g., [Kay75]. In Polish, CC is possible in complementizerless infinitival verbal complexes, which we call verb clusters (VC).[3] As observed in [Dył83], not all VCs behave uniformly with respect to CC. CC is possible with most subject control verbs, e.g., *chcieć* 'want' or *przestać* 'stop', (7.1a), but *obiecać* +NP[dat] or *przyrzec* +NP[dat] 'promise' do not allow CC, cf. (7.1b).[4]

[1]The research presented in this paper has been partly supported by the EU CRIT-2 grant.

[2]Data presented in this paper do not deal with all aspects of CC in Polish. First, they do not take into account the so-called haplology of the reflexive marker *się* 'self'. The analysis of this phenomenon is presented in [Kup99b]. Second, CC in Polish is more constrained than presented here: clitic arguments of a 'lower' verb cannot climb over clitic arguments of the 'higher' verb. We deal with this issue in [Kup99d].

[3]As in Romance, CC is possible also in tense auxiliary constructions. See [Kup99a] for an analysis.

[4]In (7.1)–(7.3), *go* 'him' is a semantic argument of the 'lowest' infinitive.

b.

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(7.1) a. Chciał go przestać zapraszać.
wanted-he him_{cl} stop_{inf} invite_{inf}
'He wanted to stop inviting him.'

* Marek obiecał go Joli zaprosić.
Mark promised him_{cl} Jola_{dat} invite_{inf}
'Mark promised Jola to invite him.'

Object control verbs such as *uczyć* +NP[acc] 'teach' or *przeszkadzać* +NP[dat] 'prevent' do not allow CC, either, (7.2a). It might seem that the presence of a nominal argument blocks CC. Note, however, that 'causative' or 'prohibitive' (object control) verbs, e.g., *kazać* +NP[dat] 'order' or *zabronić* +NP[dat] 'forbid', (7.2b), do allow CC although they have a nominal argument. We assume here that verbs which allow for CC in Polish are lexically specified.

(7.2) a. * Chciał przeszkodzić go Piotrowi zaprosić.
wanted-he disturb_{inf} him_{cl} Peter_{dat} invite_{inf}
'He wanted to prevent Peter from inviting him.'

b. Jan powinien kazać / zabronić go Piotrowi zapraszać.
John ought order_{inf} forbid_{inf} him_{cl} Peter_{dat} invite_{inf}
'John ought to order/forbid Peter to invite him.'

As with Italian restructuring verbs, e.g., [Riz82], CC in Polish is optional.[5] A clitic can be either realised locally, (7.3a), or climb to a governing verb, (7.3b) and (7.1a).

(7.3) a. Jan chce przestać zapraszać go na przyjęcia.
John wants stop_{inf} invite_{inf} him_{cl} on parties
'John wants to stop inviting him to parties.'

b. Jan chce przestać go zapraszać na przyjęcia.

Unlike in Romance, if an infinitive complement has several clitic arguments, they need not appear on the same verb, (7.4a) (*się* 'self' and *go* 'him' are arguments of the inherently reflexive *bać się* 'fear'). As (7.4b) shows, this behaviour is optional and all clitics can be realised on the same verb, like in Romance.

(7.4) a. Jan chce się przestać go bać.
John wants self_{cl} stop_{inf} him_{cl} fear_{inf}
'John wants to stop being afraid of him.'

b. Jan chce się go przestać bać.

[5] In French, only the quantitive *en* 'of-it' can optionally appear either on a causative verb or (for some speakers) on its infinitive complement. Unlike in Italian, however, the optional realisation of *en* need not influence the underlying syntactic structure, see [Mon95] and [AGS98] for analyses of Italian and French, respectively.

In Polish VC, an inherent reflexive clitic can climb as other clitics do, cf. *się* in (7.4), in contrast to French causatives, e.g., [Kay75]. Not only can the inherent clitic climb but once raised, it does not force realisation of its clitic co-arguments on the same verb, (7.5) (*się* 'self' and *mu* 'him' are arguments of the inherently reflexive *przyglądać się* 'look at'). In Romance, all clitic co-arguments must be realised on the same verb, whether raised or not.

(7.5) Jan chce mu przestać się przyglądać.
John wants-he him$_{cl}$ stop$_{inf}$ self$_{cl}$ look$_{inf}$-at
'John wants to stop looking at him'

Polish pronominal clitics are syntactic items, unlike their Romance counterparts in the morphological analyses of [Mil92], [MS97] (French) and [Mon95] (Italian). Polish clitics are prosodically deficient (they are enclitics) but do not form a prosodic lexical unit with the host, cf. [Rap88]. They can undergo ellipsis, are promiscuous and do not have a fixed position in a sentence, see, e.g., [Spe91, ch.9]. Although their distribution is relatively free, it is more restricted than that of strong pronouns or other NPs. In particular, if postverbal, they may be separated from a verb only by other clitics, in contrast to other NPs (see [Kup99c] for a more detailed discussion of linear positions of clitics):

(7.6) Jan przyjrzał mu / *[jemu] / *[nowemu koledze] się dokładnie.
John looked him$_{cl}$ him new colleague self$_{cl}$ carefully
'John looked at him / a new colleague carefully.'

Since Polish is a relatively free word order language, it might be tempting to view CC as a result of ordering rather than a syntactic climbing. One might propose an LP rule which requires clitics to either precede the verb they originate from, e.g., (7.1a) and (7.2b), or immediately follow it, (7.3a). Such an analysis, however, would not license the grammatical (7.7a). The clitic follows its governing verb *bać* 'to be afraid' but they are separated by a non-clitic. As (7.7b) shows, this is not a usual property of clitics in VC (or in general, see (7.6)).

(7.7) a. Bać zaczniemy się po wyborach.
fear$_{inf}$ begin-we self$_{cl}$ after elections
'We will begin to be afraid after the elections.'

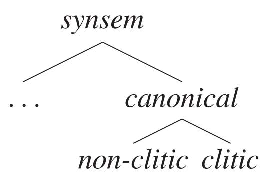
b. * Boimy zacząć się wybory.
fear-we begin$_{inf}$ self$_{cl}$ elections
'We are afraid to start the elections.'

Therefore, we assume that CC in Polish has a syntactic reflex as well.

7.2 An HPSG Analysis

As stated before, we treat Polish pronominal clitics as syntactic items. We distinguish clitics from other NPs by splitting *synsem* into subtypes. Since Polish clitics correspond to *sign*s, we represent them via the type *clitic*, a subtype of *canonical* (*synsem*), unlike in the morphological analysis of French clitics by [MS97].

(7.8)



As in Romance, see [Mon95, Mon97] and [AGS98], we assume that the Polish reflexive marker (RM) is always introduced lexically: via lexical rules, for impersonals and middles, or directly in the lexical entry, e.g., for inherent reflexives, cf. [Kup99b]. Unlike in Romance, however, no lexical mechanisms are necessary to ensure the correct representation of other pronominal clitics. We represent all Polish pronominal clitics on a par with syntactic complements, i.e., as elements of COMPS.[6] Since the value of COMPS is specified as a list of *synsem*s, both *clitic* and *non-clitic* elements can occur here. Being syntactic items, Polish pronominal clitics are removed from the COMPS list via syntactic principles, i.e., the Valence Principle and ID schemata.

CC in Polish is only allowed with certain verbs, cf. (7.1)–(7.2). In our approach, we encode this fact lexically. In order to account for CC in Romance, it has been argued that certain verbs form a complex predicate with their complement. In HPSG, complex predicate formation has been first modelled in [HN90] as structure sharing of complements (the COMPS list) of the infinitive and its governing verb. An alternative, independently proposed in [PK97] and [AGS98], is to encode this idea in terms of ARG-ST. Possible dissociations between two lists, cf. [Sag97], [MS97], [MS99], have been used to account for variety of CC in French causatives, cf. [AGS98].

Our analysis of CC in Polish differs from those proposed for Romance in [Mon95, Mon97] and [AGS98]. There is no clear evidence that CC in Polish coincides with a flat syntactic structure as has been argued for Romance, cf. [Mon95], [AGS98]. Nevertheless, there are no strong arguments that the structure of VC is hierarchical, either, cf. [PK97] for some discussion. Although the syntactic structure of Polish VC is unclear, the traditional constituency tests indicate that it is immune to CC. Hence, a double syntactic structure, as proposed in [Mon95] for CC in Italian restructuring verbs, is not attested for CC in Polish. Since the underlying syntactic structure remains intact, we assume that realisation of clitics can be independent of realisation of non-clitic arguments. A similar idea is also used to account for clitic trapping in French causatives in [AGS98]. In Polish, however, clitics are syntactic items and our approach is formalised in syntactic terms, i.e., on COMPS.

[6] Unlike in [Kup99b], we do not use an additional valence attribute to represent RM. However, since Polish verbs may occur with at most one RM, we assume that COMPS may contain at most one reflexive clitic (a *clitic:ana* element).

We assume that *kazać* 'order', which allows for CC, (7.2b), has the lexical entry as in (7.9),[7] while the lexical entry for *przeszkodzić* 'prevent', (7.2a), is given in (7.10).

$$\text{(7.9)}\quad \left[\begin{array}{ll} \multicolumn{2}{l}{\textit{word}} \\ \textsc{phon} & \text{kazać} \\ \textsc{ss}|\textsc{l}|\textsc{c} & \left[\begin{array}{ll} \textsc{head} & \textit{verb} \\ \textsc{comps} & \langle \text{NP[dat]} \rangle \oplus \left\langle \left[\begin{array}{ll} \textsc{h}|\textsc{vform} & \textit{inf} \\ \textsc{comps} & \boxed{1} \end{array}\right] \right\rangle \oplus \boxed{1}\,\textit{list(synsem)} \end{array}\right] \end{array}\right]$$

$$\text{(7.10)}\quad \left[\begin{array}{ll} \multicolumn{2}{l}{\textit{word}} \\ \textsc{phon} & \text{przeszkodzić} \\ \textsc{ss}|\textsc{l}|\textsc{c} & \left[\begin{array}{ll} \textsc{head} & \textit{verb} \\ \textsc{comps} & \langle \text{NP[dat]} \rangle \oplus \left\langle \left[\begin{array}{ll} \textsc{h}|\textsc{vform} & \textit{inf} \\ \textsc{comps} & \boxed{1} \end{array}\right] \right\rangle \oplus \boxed{1}\,\textit{list(non-cl)} \end{array}\right] \end{array}\right]$$

Note that we do not require the infinitive complement in (7.9) and (7.10) to be lexical. Thus, these lexical entries are compatible both with a flat or a hierarchical structure of VC. In (7.9), the COMPS value of the infinitive is shared with the main verb. Hence, if the infinitive has certain clitic arguments unrealised, they are 'inherited' by the main verb. Since $\boxed{1}$ is a list of *synsems*, *non-clitic*s are raised as well if the syntactic structure turns out to be flat. (7.10) differs from (7.9) since only *non-clitic* arguments of the infinitive may be added to COMPS of the main verb (if the syntactic structure is flat). Hence, the *clitic* arguments of the infinitive are never 'inherited' by the main verb.[8]

If we assume that the syntactic structure of VC is always hierarchical, the constraint in (7.11) licenses phrases with a certain number of unrealised *clitic* (but not *non-clitic*) objects.

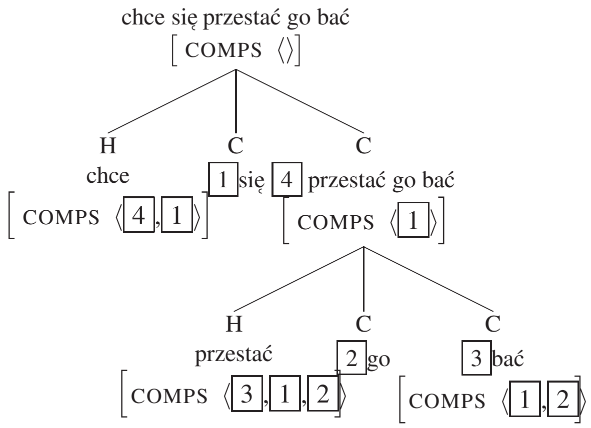
$$\text{(7.11)}\quad \textit{phrase} \rightarrow \left[\begin{array}{ll} \multicolumn{2}{l}{\textsc{synsem}|\textsc{loc}|\textsc{cat}|\textsc{val}|\textsc{comps}\ \ \textit{list(clitic)}} \\ \textsc{dtrs} & \left[\begin{array}{ll} \multicolumn{2}{l}{\textit{head-comp-struc}} \\ \textsc{head-dtr} & \textit{word} \\ \textsc{comp-dtrs} & \textit{list(sign)} \end{array}\right] \end{array}\right] \vee \ldots$$

The hierarchical structure of (7.4a) licensed by (7.11) is given in (7.12).

[7] The lexical entry for *chcieć* 'want', (7.1a), will have the analogous $\boxed{1}$ value but this verb has no nominal object itself and the infinitive complement will be the first element on COMPS.

[8] It might seem that (7.10) excludes 'downstairs' clitics if the structure of VC is flat. The 'flat' structure of VC we have in mind throughout this paper is not entirely flat. We assume that the main verb combines with a 'small VP', rather than with a lexical verb, and then 'inherits' remaining arguments. The 'small VP' is a phrase which combines a lexical head with clitics only. Such a VP will license 'downstairs' clitics and force their local realisation in this flat structure.

(7.12)



Note that the COMPS value in (7.11) is any list of *clitic*s, in particular it can be empty (as in the traditional schema 2 of [PS94]). Hence, clitics can be realised locally as well, (7.3a).

Finally, we assume that every clause[9] must satisfy the constraint:

(7.13) *clause* → [SYNSEM|LOC|CAT|VAL [COMPS ⟨⟩]]

(7.13) ensures that in a clause no clitics can remain unrealised since all VALENCE attributes must be saturated. Note that without (7.13), nothing would rule out (7.14).

(7.14) * Jan chce przestać go bać.
John wants stop$_{inf}$ him$_{cl}$ fear$_{inf}$
'John wants to stop being afraid of him.' (putatively)

Due to (7.11), phrases with unrealised clitics are licensed, i.e., *przestać go bać* is ruled in. According to (7.9), the unrealised clitic *się* (see $\boxed{1}$ in (7.12)), is inherited by the verb *chce*. Then, if the clitic is missing, as in (7.14), all phrases headed by *chce* would also have the non-empty COMPS value. Thus the whole sentence would be incorrectly licensed by (7.11). This is only by (7.13) that (7.14) is ruled out.

7.3 Summary

In this paper we presented a syntactic analysis of CC in VC. Polish data differ in many respects from those discussed in Romance although certain similarities can be observed, e.g., optionality of CC in Polish and Italian. CC in Polish, however, is much less constrained than in Romance. In particular, clitics do not have to be realised on the same verb. The grammatical status of clitics as well as the syntactic structure of verbal complexes are distinct in Polish and Romance.

Due to such discrepancies, our account of CC in Polish is different from those proposed for Romance. First, the realisation of clitics is taken care by syntax

[9] Crucially, we do not consider infinitives to head **clauses** in VC.

(rather than morphology as in Romance). Second, CC is encoded in syntactic terms but does not require verbs to restructure. Our analysis is in principle independent of the syntactic structure of VC. Finally, we assume that the realisation of clitics may be independent of the realisation of other arguments. This forces us to sightly liberate HPSG schemata and we allow for phrases with unrealised clitics. Since we provide an additional constraint on clauses, our approach does not overgenerate.

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