

An LFG analysis of się marker in Polish

Agnieszka Patejuk, Adam Przepiórkowski

{aep, adamp}@ipipan.waw.pl

Introduction

This paper proposes an LFG analysis of się – a Polish marker which is usually referred to as the reflexive marker even though it is not always the case that it is used in this function (§1). Moreover, się can be used in more than one function at the same time (§2), there is also the issue of haplology of this marker (§3) in verb chains and under coordination – the proposed analysis (§4) aims to capture these phenomena.

1 Basic uses of się

Examples below show selected uses of się: reflexive in (1), reciprocal in (2), inherent in (3), impersonal in (4).

- (1) Jacek golił się (3) Ty też się śmiejesz
Jacek.SG.M1 shaved.SG.M1 RM.REFL you.SG also RM.INH laugh.SG.2
'Jacek was shaving.' (NKJP; <http://nkjp.pl/>) 'You're also laughing.' (NKJP)
- (2) Przez chwilę całowali się (4) po Edenie chodziło się nago
for moment kissed.PL.M1 RM.RECIP along Eden walked.SG.N RM.IMP nude
'For a moment, they were kissing each other.' (NKJP) 'One would walk nude in Eden.' (NKJP)

Though się is traditionally described as a weak form of the pronoun SIEBIE 'self', it can only be replaced with appropriate forms of SIEBIE in (1)–(2), and even there the referential properties of the two forms differ in the sense of Jackendoff 1992 (meaning transfer is only possible with forms of SIEBIE).

When the impersonal się is used, it blocks the use of a lexical subject and triggers default agreement (third person, singular, neuter) on the verb – this construction is productive, it can be used with any predicate which allows for a personal subject.

2 Multifunctional use of się

It is possible for się to have more than one function at the same time: in both examples below się is impersonal (as in (4) above), apart from being inherent in (5) (as in (3)) and reflexive in (6) (as in (1)).

- (5) kiedyś śmiało się z tego, że student głodny.
sometime laughed.SG.N RM.INH.IMP from this that student hungry
'One used to laugh about the fact that a student is hungry.' (Google)
- (6) Kiedyś goliło się żyletkami
sometime shaved.SG.N RM.REFL.IMP razor blade.PL.INST
'One used to shave with razor blades.' (Google)

3 Haplology of się

When two (or more) predicates in a verb chain require się, the one belonging to the structurally higher predicate can satisfy the requirements of the lower one – as a result, only one instance of się can be used (Kupść 1999):

- (7) A czy Tobie zdarzyło się śmiać z dowcipu który nie był [...] śmieszny?
and PART you happened.SG.N RM laugh from joke which NEG was funny
'Have you happened to laugh at a joke that was not funny?' (Google)
- (8) Sporo osób boi się golić pod włos.
many people fear.SG.N RM shave under hair
'Many people are afraid of shaving against the grain.' (Google)
- (9) kiedyś chodziło się do kina gapić na wielki mrugający ekran
sometime walked.SG.N RM to cinema stare at great blinking screen
'One would go to a cinema to stare at the great blinking screen.' (NKJP)

Many combinations are possible: while in (7) both predicates – *zdarzyło się* 'happened' and *śmiać się* 'laugh' – require the inherent się, in (8) with *boi się* 'fears' się is inherent, but with *golić się* 'shave' it is reflexive; similarly, in (9), *chodziło się* 'one used to go' takes the impersonal się, while *gapić się* 'stare' requires the inherent się.

się can also be shared by coordinated predicates, even when it is „intertwined” in one of the conjuncts, as in the examples below. While się may have the same function with both coordinated verbs, as in (10) where *całowali się* 'kiss (each other)' and *przytulali się* 'hug (each other)' require the reciprocal się, it may also be different for each conjunct, as in (11), where się required by *śmiali się* 'laughed' is inherent, while with the figurative *pukali się w głowy*, lit. 'knocked selves in heads', i.e., 'implied that somebody is nuts', it is reflexive:

- (10) Całowali się i przytulali!
kissed.PL.M1 RM.RECIP and hugged.PL.M1
'They were kissing and hugging each other!' (Google)
- (11) śmiali się i pukali w głowy
laughed.PL.M1 RM and knocked.PL.M1 in heads
'They were laughing and asking if somebody is nuts.' (NKJP)

4 Analysis

The proposed analysis of się is inspired by the analysis of case offered in Dalrymple *et al.* 2009, which involves the use of a complex CASE attribute containing subattributes corresponding to particular values of case, each of which takes a boolean value, thereby making it possible to account for case syncretism in languages such as Polish, where different predicates can impose different case requirements on the shared dependent. The lexical entry of się is provided in (12):

(12) SIE \equiv (\uparrow SIE PRESENT) = + \wedge [SIE-PRED \vee SIE-IMP]

(13) SIE-PRED \equiv (\uparrow SIE {INH|REFL|RECIP}) =_c + \wedge {SIE-IMP}

(14) $SIE-IMP \equiv (\uparrow SIE IMP) = + \wedge (\uparrow SUBJ) = \%S \wedge (\%S PRED) = 'PRO' \wedge (\%S PERS) = 3 \wedge (\%S NUM) = SG \wedge (\%S GEND) = N$
 The lexical entry provided in (12) consists of two conjuncts. The first one introduces the attribute *SIE*, which contains the attribute *PRESENT*, whose value is set to $+$: it marks the presence of *SIE*, which is analysed as a co-head of the relevant verb, so it contributes to its f-structure. The second conjunct is a disjunction of two template calls; let us start with the discussion of the second one: *SIE-IMP*, defined in (14), handles impersonal *SIE* – it sets the value of the *IMP* subattribute of *SIE* to $+$ and imposes constraints on the subject of the verb to which it attaches: it introduces a *pro* subject to block the occurrence of a lexical one and it imposes appropriate agreement constraints (third person, singular, neuter). The first disjunct, *SIE-PRED* defined in (13), is applicable to inherent (*INH*), reflexive (*REFL*) and reciprocal (*RECIP*) *SIE*. (13) consists of two conjuncts: the first one checks whether the attribute *SIE* has the positive value for any of the relevant types of *SIE*, while the second one is the optional call to *SIE-IMP* discussed above – if this call is used, it makes *SIE* multifunctional: it is both impersonal and of one the other three types (see §2 above).

The last part of the analysis is placed in the lexical entries of verbs requiring *SIE* – they contain calls to the template defined in (15), where the value of the parameter *TYPE* corresponds to the type of required *SIE* (*INH*, *REFL* or *RECIP*):

(15) $SIE-TYPE(TYPE) \equiv (\uparrow SIE TYPE) = + \wedge ((XCOMP^* \uparrow) SIE PRESENT) =_c +$

The first conjunct of (15) specifies the type of required *SIE*, while the second one ensures that *SIE* is present in the relevant domain – either locally to the verb or higher in the verb chain, which accounts for haplology of *SIE* described in §3.

Let us consider some structures produced by this analysis – the f-structures in (16)–(17) provide simplified representation of sentences (5)–(6), which involve the multifunctional *SIE*.

<p>(16) $\left[\begin{array}{l} \text{PRED } 'LAUGH(\underline{1},\underline{2})' \\ \text{SUBJ } \underline{1} \left[\begin{array}{l} \text{PRED } 'PRO' \end{array} \right] \\ \text{OBL } \underline{2} \left[\begin{array}{l} \text{PRED } 'THIS' \\ \text{PFORM } Z \\ \text{CASE } GEN \end{array} \right] \\ \text{SIE } \left[\begin{array}{l} \text{INH } + \\ \text{IMP } + \\ \text{PRESENT } + \end{array} \right] \end{array} \right]$</p>	<p>(17) $\left[\begin{array}{l} \text{PRED } 'SHAVE(\underline{1})' \\ \text{SUBJ } \underline{1} \left[\begin{array}{l} \text{PRED } 'PRO' \end{array} \right] \\ \text{ADJ } \left\{ \begin{array}{l} \text{PRED } 'RAZOR' \\ \text{CASE } INST \end{array} \right\} \\ \text{SIE } \left[\begin{array}{l} \text{REFL } + \\ \text{IMP } + \\ \text{PRESENT } + \end{array} \right] \end{array} \right]$</p>	<p>(18) $\left[\begin{array}{l} \text{PRED } 'FEAR(\underline{1},\underline{2})' \\ \text{SUBJ } \underline{1} \left[\begin{array}{l} \text{PRED } 'JANEK' \end{array} \right] \\ \text{XCOMP } \underline{2} \left[\begin{array}{l} \text{PRED } 'TRY(\underline{3})\underline{1}' \\ \text{SUBJ } \underline{1} \\ \text{XCOMP } \underline{3} \left[\begin{array}{l} \text{PRED } 'SMILE(\underline{1})' \\ \text{SIE } \left[\begin{array}{l} \text{INH } + \end{array} \right] \end{array} \right] \end{array} \right] \\ \text{SIE } \left[\begin{array}{l} \text{INH } + \\ \text{PRESENT } + \end{array} \right] \end{array} \right]$</p>
--	--	--

Under the current analysis, *SIE* contributes the attribute *PRESENT* inside *SIE* (see the f-structure (18), for the sentence (19), where the main verb is *bał się* ‘feared’), while verbs whose requirement of *SIE* is satisfied as a result of haplology do not have this attribute (see the f-substructure corresponding to *uśmiechnąć się* ‘smile’ in (18)) – this difference makes it possible to identify instances of *SIE* haplology in f-structures. Furthermore, since it is the verb that determines the type of *SIE* (using a defining equation), it is possible to handle haplology where different types of *SIE* are involved, as in (8) and (9). Finally, such an analysis of haplology ensures that the requirement of an appropriate type of *SIE* of relevant predicates is satisfied without placing the *SIE* attribute in the f-structures of all immediate predicates which may have no such requirement, as in (19), whose f-structure is provided in (18) – unlike *bać się* ‘fear’ and *śmiać się* ‘laugh’, *próbować* ‘try’ does not require *SIE* and putting *SIE* in the corresponding f-structure would distort its semantics.

<p>(19) <i>Bał się próbować uśmiechnąć.</i> feared.SG.M1 RM.INH try smile ‘He was afraid to try to smile.’</p>	<p>(20) <i>Bał się, płakał i śmiał.</i> feared.SG.M1 RM.INH cried.SG.M1 and laughed.SG.M1 ‘He was afraid, he cried and he laughed.’</p>
--	---

The last remaining issue is the haplology of *SIE* under coordination, illustrated in (10)–(11). The first can be handled by the current general analysis of „intertwined” shared dependents under coordination using the following rules, where *DEP* corresponds to the shared dependent and *RM* to *SIE* (analysed as a co-head):

- (21) $IP_{top} \rightarrow IP \quad DEP \quad Conj \quad IP$
 $\quad \quad \downarrow \in \uparrow \quad \quad \quad \downarrow \in \uparrow$
- (22) $DEP \rightarrow \{ \quad ARG \quad | \quad MOD \quad | \quad RM \quad \}$
 $\quad \quad (\uparrow GF) = \downarrow \quad \quad \downarrow \in (\uparrow ADJUNCT)$

This implementation of the analysis correctly handles sentences such as (11), where coordinated predicates require different types of *SIE*, without further modifications: the defining part of the lexical entry of *SIE* in (12), $(\uparrow SIE PRESENT) = +$, distributes over all conjuncts, but the constraining equations are checked separately for each conjunct. One possible problem for the proposed analysis is, however, how to restrict structure-sharing of the shared dependent (*SIE*) to relevant predicates in coordinate structures in which only some of the conjuncts require *SIE* – in (20) the first (*bać się*) and the last (*śmiać się*) conjunct require inherent *SIE*, while *płakać* ‘cry’ has no such requirement and therefore cannot satisfy the constraining equations defined in (13)–(14).

Conclusion

This paper provided an initial analysis of the *SIE* marker in Polish, taking into account its multifunctionality and haplology in verb chains as well as under coordination, though the latter requires further research in order to establish whether sentences such as (11) and (20) can be accounted for in both in theoretical LFG and in XLE implementations.

References

- Dalrymple, M., King, T. H., and Sadler, L. (2009). Indeterminacy by underspecification. *Journal of Linguistics*, **45**, 31–68.
- Jackendoff, R. (1992). Madame Tussaud meets the Binding Theory. *Natural Language and Linguistic Theory*, **10**, 1–31.
- Kupść, A. (1999). Haplology of the Polish reflexive marker. In R. D. Borsley and A. Przepiórkowski, editors, *Slavic in Head-Driven Phrase Structure Grammar*, pages 91–124. CSLI Publications, Stanford, CA.