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Strict and Sloppy Readings of Pronominal Objects in Polish¹

Abstract

Pronominal clitics in South Slavic languages have been shown to manifest the strict/sloppy reading ambiguity effect. In this paper I examine Polish object pronouns from this perspective, observing that even though they are not clitics, they can still be compatible with the sloppy interpretation if the right type of context is provided. The data speak against an ellipsis-based approach, aligning with the view that the sloppy reading is not a viable test for ellipsis. I thus pursue an alternative analysis on which the strict and sloppy readings are associated with a structural difference in the composition of the pronoun (PersP vs. NumP respectively), offering along the way additional evidence pointing to the importance of pragmatic distinctions in investigations of the interpretive properties of different types of nominal elements. From a more general point of view, the discussion suggests that the empirical picture related to the sloppy interpretation is highly complex, making an investigation of a broader spectrum of languages and contexts indispensable for disentangling all the relevant factors and developing an optimal theoretical approach.

Keywords

strict and sloppy reading, pronouns, clitics, argument drop

Abstrakt

W literaturze dotyczącej języków południowosłowiańskich pokazano, że klityki zaimkowe w tych językach przejawiają dwuznaczność pod względem dokładnej i niedokładnej interpretacji. W artykule poddaję badaniu z tej perspektywy polskie zaimki w funkcji dopełnienia, pokazując, że – pomimo iż nie są klitykami – mogą też mieć interpretację niedokładną, jeżeli są osadzone w odpowiednim kontekście. Dane przemawiają przeciwko

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podejściu wykorzystującemu mechanizm elipsy, w zgodzie z poglądem, że interpretacja niedokładna nie jest wiarygodnym testem dla struktur eliptycznych. Proponuję zatem alternatywną analizę, według której interpretacje dokładna i niedokładna wynikają z różnicy strukturalnej zaimka (odpowiednio PersP vs. NumP), dostarczając przy tym dodatkowych danych wskazujących na wagę rozróżnień pragmatycznych dla badań nad własnościami interpretacyjnymi różnych typów jednostek nominalnych. Z bardziej ogólnego punktu widzenia dyskusja sugeruje, że dane empiryczne związane z zagadnieniem interpretacji niedokładnej są niezwykle skomplikowane, przez co konieczne jest zbadanie szerszego spektrum języków i kontekstów w celu rozwikłania wszystkich istotnych zmiennych oraz zaproponowania optymalnego podejścia teoretycznego.

Słowa kluczowe

dokładna i niedokładna interpretacja, zaimki, klityki, opuszczanie argumentu

Introduction

The observation that not only elliptical structures, but also overt clitic pronouns can trigger the so-called strict/sloppy reading ambiguity effect is an issue which has received some attention in the literature on Slavic languages. In particular, some of them have been shown to enjoy a much greater freedom in assigning the sloppy reading to an overt pronoun than English, where this is a limited phenomenon. For example, the pronominal dependencies in the Slovenian example in (1) from Perlmutter and Orešnik (1973), quoted here after Franks (2013: 62), can be resolved in two ways: the pronoun ga 'it' can be interpreted either as referring to the same car as the one which Stane saw (strict identity) or to a different one (sloppy identity).

```
(1) Stane
             ie
                    videl
                            play
                                                    tudi
                                                            Tone
                                                                      ga
     Stane
             AUX
                    seen
                            blue
                                            and
                                                    also
                                                            Tone
                                    car
     ie
             videl.
                                                         [Slovenian; strict and sloppy]
             seen
     AUX
```

'Stane saw a blue car and Tone also saw it/one.'

This contrasts with what is observed in Russian, Slovak, and Bulgarian, which make only the strict reading available in this context, as Franks (2013: 62) shows with the examples in (2).

```
(2) a. Vanja
                 videl
                           sinij
                                   avto/
                                            sinjuju
                                                       mašinu
        Vanja
                 saw
                           blue
                                   car.m
                                            blue
                                                       car.F
                                                                 and
                                             videl.
        Petia
               tože
                          ego/
                                   ee
                                                                  [Russian; only strict]
        Petia
                also
                          him
                                   her
                                             saw
        'Vanja saw a blue car and Petja also saw it/*one.'
```

² Some examples from linguistics sources throughout the text have been adapted to the conventions followed here.

videl b. Pavol modré auto/ modrý automobile i Pavol saw blue car.N blue car.m and Peter ho tiež videl. [Slovak; only strict] Peter it/him also saw

'Pavol saw a blue car and Peter also saw it/*one.'

automobile c. Ivan vidia sin Petâr go saw Ivan blue car.M and Petâr him vidia sâšto. [Bulgarian; only strict] saw also

'Ivan saw a blue car and Peter also saw it/*one.'

On the other hand, in Bosnian/Croatian/Serbian (henceforth BCS), the judgments are affected by pragmatic plausibility. According to Franks (2013: 76) the sloppy reading is unavailable in the counterpart of (2) in (3), but is required in (4), where the strict reading is pragmatically odd.³

- (3) Goran ie vidio plava kola Zoran ih ie Goran AUX seen blue car and Zoran it AUX također vidio. [BCS; only strict] also seen
 - 'Goran saw a blue car and Zoran also saw it/*ones.'
- (4) a. Goran ima smeđi kaput i Zoran ga Goran has brown coat and Zoran him također ima. [BCS; only sloppy] also has

'Goran has a brown coat and Zoran also has *it/one.'

b. Goran ima ženu Zoran pametnu je Goran Zoran has wife her smart and također ima. [BCS; only sloppy] also has

'Goran has a smart wife and Zoran also has *her/one.'

Even though in these contexts Polish does not make the sloppy reading available, as illustrated in (5) and (6), in Section 2 below I show that this reading is actually not difficult to obtain in some other environments.⁴

³ Franks (2013) notes that according to Runić (2013) the sloppy reading is generally available in BCS. What is more, an anonymous SPL reviewer points out that factors such as specificity can also influence the interpretive options.

⁴ To make the sloppy reading the only plausible option, the example in (5) could be embedded within the context in (i), which, however, does not alter the indicated judgment.

⁽i) Blue cars are rather rare. Despite this, even though Anna and Zofia live in different cities, yesterday...

The sloppy reading in this context would most naturally be expressed with stripping (... i Zofia też 'and Zofia too').

Zofia Anna zobaczyła niebieski samochód też Anna saw blue car and Zofia also [Polish; only strict] zobaczyła. go him saw 'Anna saw a blue car and Zofia also saw it.'

- brazowy płaszcz Zofia (6) a. Anna ma też brown Zofia Anna has coat and also #go [Polish; only strict] ma. him has 'Anna has a brown coat and Zofia also has it.' b. Adam ma madra żone Tomek też
 - b. Adam ma mądrą żonę i Tomek też
 Adam has smart wife and Tomek also
 #ją ma.
 her has

 [Polish; only strict]

From the theoretical perspective, the availability of the sloppy reading with pronouns in Slovenian and BCS has been approached in different ways. Franks (2013, 2016) suggests that under this reading the pronoun originates in the Def(initeness) head and moves to the K(ase) head in a [K [Def [N]]] structure, in which N is empty. Under the strict reading, the pronoun originates under K in a [K [N]] structure. On the other hand, Runić (2013) proposes that the sloppy reading can be attributed to the predicate (<e, t>) denotation of clitic pronouns in languages without articles, just as what has been proposed for null arguments in Japanese in Tomioka (2003). The clitic is then interpreted as property anaphora and its ultimate reading can be

^{&#}x27;Adam has a smart wife and Tomek also has her.'

The examples in (6) favour the sloppy reading in their own right and, what transpires from Franks's (2013) discussion is that, unlike in Polish, the sloppy interpretation comes naturally here in BCS without the need for additional context.

⁵ This holds of the deficient/clitic pronouns such as *ga* 'him'. In the full counterpart *nje-ga* 'HIM' *nje-* is generated under N and moves to K, which hosts *ga.* See Franks (2016) for some discussion of the differences and similarities between his approach and Cardinaletti and Starke's (1999) proposal, under which a structural difference is assumed between strong, weak, and clitic pronouns in that the structure of the latter is truncated with respect to the former, and, as follows, different types of pronouns are of different categories ([C_L [Σ_L [I_L]]] vs. [Σ_L [I_L]] vs. [I_L]. For Franks (2013, 2016) all pronouns are K(P)s. As I show in Ruda (2021), Polish pronouns do not behave in a way expected under Cardinaletti and Starke's (1999) system, which is why the alternative pursued here is more in line with Franks's approach.

⁶ Dating back at least to Huang (1987) and Otani and Whitman (1991) on the VP ellipsis side and to Oku (1998) and Kim (1999) on the argument ellipsis side, the sloppy reading has been at the center of the discussions offering ellipsis-based analyses of null arguments, as opposed to the null pronoun-based approach. For example, the Mandarin structure in (i) from Huang (1991: 64), where the direct object of the verb *kanjian-le* 'see-PERF' which is missing in the second clause is ambiguous between the strict (i.e. Mary saw John's mother) and the sloppy reading (i.e. Mary saw her own mother), can be argued to involve verb-stranding VP ellipsis, where the overtness of the lexical verb is due to its movement to a higher functional

achieved by existential closure or by type-shifting via the application ι (see Tomioka 2003 for a more detailed semantic discussion). While the availability of this type of analysis suggests to both Tomioka (2003) and Runić (2013) that employing argument ellipsis to account for the sloppy reading of null arguments is not warranted, in his recent paper Bošković (2018) proposes a different perspective, suggesting that not only is argument ellipsis the right type of approach to the null argument data, but it can also be employed to account for the sloppy reading of BCS clitics. In particular, Bošković (2018) builds his analysis around the observation that both argument ellipsis and clitics make the sloppy reading available and proposes that structures with clitics actually feature clitic doubling with argument ellipsis and it is the elliptical NP which gives rise to the sloppy interpretation. While this is certainly an interesting hypothesis to entertain (see Section 3 for some more discussion), it predicts that only languages with clitics should make the sloppy reading available. This is not true of Polish, which in the right contexts makes the sloppy reading available, as I show in Section 2, but which lacks clitics in its pronominal system (see Cetnarowska 2004, as well as Jung and Migdalski 2015, Migdalski 2016, and Ruda 2021). The facts discussed below will thus show that the complexity of the empirical picture of the availability of the sloppy interpretation with overt pronouns, including the role of information-structural factors, needs to be appreciated more in developing the analyses and that ellipsis may indeed not be the optimal mechanism to derive all relevant observations.

projection before ellipsis applies (see (ia)). Alternatively, only the nominal object can be taken to undergo ellipsis here (see (ib)).

While the strict/sloppy reading ambiguity effect has been used as a diagnostic for the VP or NP/DP ellipsis analysis of data with null arguments in various languages (for relevant discussions of the VP ellipsis approach, see, a.o., Huang 1991; Hoji 1998; Otani and Whitman 1991; Gribanova 2013a, 2013b; Cyrino and Lopes 2016; Bailyn 2017, and Landau 2020; for discussions focusing on the NP/DP ellipsis approach, see Oku 1998; Saito 2007; Şener and Takahashi 2010; Duguine 2014; Landau 2018; Sakamoto 2019, and references therein), the strength of the argument has been weakened by the observation that the sloppy reading is sometimes available outside the domain of ellipsis (see, e.g., Tancredi 1992; Runić 2013, and Merchant 2013).

⁽i) John kanjian-le tade mama, Mary ye
John see-perf his mother Mary also
kanjian-le ø.

[Mandarin; strict and sloppy]
see-perf

^{&#}x27;John saw his mother, and Mary did, too.'

a. ... Mary ye kanjian-le [_{VP} kanjian-le tade mama].

b. ... Mary ye kanjian-le [NP tade mama].

I thus begin the discussion in Section 2 with a brief comment about the system of Polish pronouns for some general orientation, after which I move on to probe into the interpretive options available to Polish pronouns in the light of the strict/sloppy reading ambiguity effect. I discuss contexts involving different types of antecedents, including non-quantificational, non-referential, extralinguiatic, and quantificational antecedents. I show that the availability of the sloppy reading is highly sensitive to context in Polish (especially contrast), a feature shared with null objects, and I suggest that the sloppy reading is available in Polish due to the third person pronouns being associated not only with the PersP representation, but also NumP, the latter of which can be interpreted as property anaphora. In Section 3, I consider some further theoretical issues raised by the data. Section 4 concludes.

1. Strict and sloppy readings of object pronouns in Polish

In its pronominal inventory, Polish has the full and reduced forms, though only the second person singular and the third person singular masculine show the distinction morphologically (see Witkoś 1998; Cetnarowska 2003, 2004 and references therein). Accordingly, we have the opposition between *ciebie* 'you.acc' and *cię* 'you.acc' and *jego* 'him.acc' and *go* 'him.acc', but no alternative is available for *mnie* 'me.acc', *jq* 'her.acc', *je* 'it.acc', *nas* 'us.acc', *was* 'you.pl.acc', *ich* 'them.m.acc', and *je* 'them.acc'. The consensus emerging from the literature is that the system of personal pronouns in Polish lacks clitics, both full and reduced variants showing the behaviour of phrasal projections (see Cetnarowska 2004, as well as Jung and Migdalski 2015, Migdalski 2016, and Ruda 2021).

In general, the availability of the sloppy reading of overt pronouns in some Slavic languages has been attributed to two factors: (i) their clitic status, and (ii) the relevant languages being articleless systems (see Runić 2013; Bošković 2018, and references therein). As Polish fulfils the latter condition, but its pronouns do not fulfil the former, it is interesting to observe that the sloppy interpretation is nevertheless available to Polish pronouns under appropriate discourse conditions. The contexts where this is possible are not completely parallel to what has been reported for Slovenian and BCS, among other Slavic languages. For example, an equivalent of the BCS sentence in (7) from Runić (2013: 420), which according to her yields similar results in

⁷ The focus here will be on object pronouns. A discussion of pronominal subjects involves additional complications due to the fact that Polish is a consistent null subject language with rich agreement morphology (however defined).

Slovenian, Czech, and Slovak, is not compatible with the sloppy reading in Polish (see also (5)–(6) in Section 1).8

(7) [Context: Nikola and Danilo are best friends. They have many interests in common except their taste for movies is completely different. Specifically, Nikola likes comedies, whereas Danilo likes horror movies. In their town, a movie festival of all film genres takes place every summer. A comedy and a horror movie played at the same time in two different buildings. Given their very different tastes, Nikola and Danilo saw two different movies.]

Nikola video film. video ie ga film Nikola AUX saw and it.CL.ACC saw i Danilo. [BCS; strict and sloppy] ie Danilo and

(8) [Context: Anna and Adam are best friends. Continued as in (7).] widziała film Adam Anna też go film Anna Adam him saw and too widział. [Polish; only strict] saw

Similarly, unlike in comparable contexts in the Japanese null object structure (see, a.o., Takahashi 2020: 49), the pronoun in (9) does not give rise to ambiguity by which Zofia could have noticed either the same or a different squirrel. Only the former is possible (just as is the case with an overt pronominal object in Japanese).⁹

(9) a. Anna zauważyła wiewiórkę. Zofia jej
Anna noticed squirrel Zofia her.GEN
nie zauważyła. [Polish; only strict]
not noticed

^{&#}x27;Nikola saw a movie and Danilo saw it/one too.'

^{&#}x27;Anna saw a movie and Adam saw it too.'

^{&#}x27;Anna noticed a squirrel. Zofia didn't notice it.'

⁸ As Runić (2013) notes, Bulgarian and Macedonian do not make the sloppy reading available here either. Since these two languages have definite articles, Runić (2013) relates these observations by suggesting that the sloppy reading is available only in languages without articles (see also Bošković 2018).

 $^{^{9}}$ The pronoun in (9a) is genitive due to the Genitive of Negation, obligatory in Polish regardless of semantic factors.

To make the sloppy reading the only plausible option, the examples in (9) and (10) could be embedded within the context in (i), which, however, does not alter the indicated judgment.

Anna and Zofia live in different cities and they both like going for a walk in the nearby forests. Yesterday...

b.	Anna	zauważyła	wiewiórkę.	Zofia	też		
	Anna	noticed	squirrel	Zofia	also		
	ją	zauważyła.				[Polish; only strict]	
	her.acc	noticed					
'Anna noticed a squirrel. Zofia also noticed it.'							

However, the situation changes when the sentence involves some sort of contrast, as in (10), where both interpretations are available.

```
(10) Anna
                   zauważyła
                                  wiewiórke
                                                przed
                                                             domem.
                                                                         Zofia
                                                                         Zofia
    Anna
                   noticed
                                  squirrel
                                                in.front.of house
                                   lesie.
     zauważyła
                            337
                                                            [Polish; strict and sloppy]
                   ja
                                   forest
     noticed
                   her
                            in
     'Anna noticed a squirrel in front of the house. Zofia noticed it/one in the forest.'
```

Moreover, due to pragmatics, (11) is actually compatible only with the sloppy interpretation.

oddała (11) Anna oddała Zofia żvcie kraj. swói Anna gave life for self's country Zofia gave [Polish; only sloppy] je ratujac tonacego brata. it saving drowning brother

'Anna gave her life for her country. Zofia gave hers saving her drowning brother.'

It is thus quite clear that the interpretive properties of Polish pronouns are highly sensitive to context. Following Ruda's (2021) analysis of the representation of Polish pronouns, I suggest that the availability of the sloppy interpretation of pronouns in Polish can be attributed to the third person pronouns having two possible representations, that is PersP and NumP, where the morphological contribution of the Pers head in this case can be null, yielding the same outcome for a third person Pers-Num-n and a Numn structure. In effect, the strict and sloppy readings in (12), where the preference is moderated by pragmatic plausibility, arise as a result of the pronoun *je* 'them' being represented either as a PersP (only strict reading) or as a NumP (in principle both types of readings, on the assumption that Polish, as an articleless language makes definite interpretations of NumPs available (see Ruda 2021 for more discussion)¹⁰).

(12) a. Anna zarobiła pieniadze, Adam ie Adam them Anna earned money and wygrał. [strict and sloppy] won 'Anna earned money and Adam won some/it.'

¹⁰ Principles such as Maximize Presupposition ("Präsupponiere in deinem Beitrag so viel wie möglich!" [Presuppose as much as possible in your contribution!]; Heim 1991: 515) may require PersP to be used in definite contexts rather than NumP).

```
b. Anna zarobiła pieniądze, a Adam je
Anna earned money and Adam them
wydał.
spent

[strict and sloppy]
```

'Anna earned money and Adam spent it/some.'

```
c. je: \begin{bmatrix} NumP & Num & [n] \end{bmatrix} \begin{bmatrix} Sloppy, potentially also strict \end{bmatrix} je: \begin{bmatrix} PersP & Pers & Num & [n] \end{bmatrix} \begin{bmatrix} Sloppy, potentially also strict \end{bmatrix}
```

If the pronominal NumP can operate as property anaphora, the sloppy reading is accounted for (cf. Tomioka's 2003 assumptions concerning Japanese null arguments and Runić's 2013 assumptions about BCS clitics, both of whom assume i type-shifting for definite interpretations, which may not be necessary (see Ruda 2021)).

Setting this inside a broader perspective, it can be noticed that pronouns are not alone in their sensitivity to contextual factors, as these also govern the acceptability and interpretation of null objects in Polish.¹¹ This points to the importance of the information-structural configurations in which the acceptability of different options is tested.

While null objects are in principle available in Polish, their distribution is restricted (see Ruda 2017 and references therein). Firstly, there are contexts where a null object is unavailable and the overt pronoun has to be used. For example, as McShane (1999: 61) shows, omitting the object is unacceptable in (13a), but when the contrastive coordinator a 'and' is used instead of i 'and', the judgment changes, as indicated in (13b).

(13) a.	Zdjęłam	mu	płaszcz	i	Maria	
	took.off.1sg.f	him.dat	raincoat.Acc	and	Maria	
	powiesiła	*(go)	na	wieszaku	1.	
hung		it	on	hanger	hanger	
	'I took his rainc	I took his raincoat (off of hi		ng it on a l	nanger.'	
b.	Zdjęłam	mu	płaszcz,	a	Maria	
	took.off.1sg.f	him.dat	raincoat.ACC	and	Maria	
	powiesiła	(go)	na	wieszaku.		
	hung	it	on	hanger		
	'I took his raincoat (off of him) and Maria hung it on a hange					

An important factor to bear in mind here is also that there are different structures which can deliver the sloppy reading in Polish, so some degree of competition may also influence the interpretive preferences of the relevant sentences. For example, in the context in (14), a null object is not acceptable.¹²

¹¹ See McShane (1999) for a discussion of different factors influencing object drop in Polish (e.g. contrast and the case-marking of the antecedent).

¹² This example is modeled after Landau (2018: 4), who shows that in Hebrew the null object is available here with the strict and sloppy reading, as opposed to a pronominal object, which requires the former.

An object realised as an overt pronoun triggers the strict reading only, as in (14b). The sloppy reading is rendered with an overt anaphoric pronoun, a remnant of NP-internal ellipsis of *swoje biurko* 'self's desk' in (14c). Only the VP anaphoric equivalent of the English *do so* anaphor is ambiguous between the two interpretations, as in (14d).

(14) a.	*Anna	wyczyściła	swoje	biurko,	po	tym
	Anna	cleaned	self's	desk	after	this
	jak	Adam	wyczyścił	ø.		
	how	Adam	cleaned			
	'Anna cle	eaned her desk a	after Adam o	cleaned it/his	s.'	
b.	Anna	wyczyściła	swoje	biurko,	po	tym
	Anna	cleaned	self's	desk	after	this
	jak	Adam	je	wyczyścił.		[only strict]
	how	Adam	it	cleaned		
	'Anna cle	eaned her desk a	after Adam o	cleaned it.'		
c.	Anna	wyczyściła	swoje	biurko,	po	tym
	Anna	cleaned	self's	desk	after	this
	jak	Adam	wyczyścił	swoje.		[only sloppy]
	how	Adam	cleaned	self's		
	'Anna cle	eaned her desk a	after Adam o	cleaned his.'		
d.	Anna	wyczyściła	swoje	biurko,	po	tym
	Anna	cleaned	self's	desk	after	this
	jak	Adam	to	zrobił.		[strict and sloppy]
	how	Adam	this	done		
	'Anna cle	eaned her desk a	after Adam o	did it.'		

Again, the situation changes when contrast is involved, in which case the null object is acceptable. In the context in (15a), the null object has the sloppy reading according to which Adam repainted his new apartment, not Anna's. Using a pronoun in this context makes both interpretations possible and, as expected, using the elliptic NP with the anaphoric remnant introduces only the sloppy interpretation.

(15) a.	Anna	gruntownie	posprzątała	swoje	nowe
	Anna	thoroughly	cleaned	self's	new
	mieszkanie,	a	Adam	nawet	
	apartment	and	Adam	even	
	odmalował ø.				[only sloppy]
	repainted				
	'Anna cleaned	d her new apartment thoroughly and		and Adam	even repainted his.'
b.	Anna	gruntownie	posprzątała	swoje	nowe
	Anna	thoroughly	cleaned	self's	new
	mieszkanie,	a	Adam	je	nawet
	apartment	and	Adam	it	even
	odmalował.				[strict and sloppy]
	repainted				

'Anna cleaned her new apartment thoroughly and Adam even repainted it/his.'

c.	Anna	gruntownie	posprzątała	swoje	nowe
	Anna	thoroughly	cleaned	self's	new
	mieszkanie,	a	Adam	swoje	nawet
	apartment	and	Adam	self's	even
	odmalował.				[only sloppy]
	repainted				

^{&#}x27;Anna cleaned her new apartment thoroughly and Adam even repainted his.'

A similar pattern is observed with sentences uttered by different speakers, as in (16a), where the null object yields the sloppy interpretation, (16b), where the pronoun triggers ambiguity, and (16c), where the anaphor is consistent only with the sloppy interpretation.

- (16) a. A: Umyłam przed chwila jabłko. swoje washed.1sg.F before while self's apple 'I've just washed my apple.' B: ia od zjadłam ø. [only sloppy] razu and I at once ate.1sg.F 'And I've eaten mine at once.' b. A: Umvłam przed chwila jabłko. swoje washed.1sg.F before while self's apple 'I've just washed my apple.'
 - B: A ja je od razu zjadłam. [strict and sloppy] and I it at once ate.1sg.F
 'And I've eaten it/mine at once.'
 - c. A: Umyłam przed chwilą swoje jabłko. washed.1sg.f before while self's apple 'I've just washed my apple.'
 - B: A ja swoje od razu zjadłam. [only sloppy] and I self's at once ate.1sg.f 'And I've eaten it at once.'

The patterns are similar with human antecedents, as in (17).

(17) a. Anna zawsze krytykuje swoje córki, Anna always criticizes self's daughters and Zofia chwali ø. [only sloppy] ciagle Zofia constantly praises 'Anna always criticises her daughters and Zofia constantly praises hers.' b. Anna zawsze krytykuje swoje córki, Anna criticizes self's always daughters and Zofia ie ciagle chwali. [strict and sloppy] Zofia them constantly praises 'Anna always criticises her daughters and Zofia constantly praises them/hers.'

c.	Anna	zawsze	krytykuje	swoje	córki,	a
	Anna	always	criticizes	self's	daughters	and
	Zofia	swoje	ciągle	chwali.		[only sloppy]
	Zofia	them	constantly	praises		
	(_	

'Anna always criticises her daughters and Zofia constantly praises hers.'

To complete the picture, I show in (18) that the sloppy reading is also available to the indirect object and, as indicated in (19)–(21), it can also be accessed with the morphologically largest forms (i.e. with full pronouns).¹³

(18) Anna	wysłała	swojemu	synow	i tradyc	yjną	kartkę	
Anna	sent	self's	son.DA	т traditi	onal	card	
Z	gratulacjami,	a	Zofia	mu	nawet	nie	
with	congratulation	ns and	Zofia	him.dat	even	not	
napisa	ła smsa.				[str	ict and sloppy]	
wrote	text.messag	ge					
'Anna has sent her son a traditional congratulations card, but Zofia hasn't even							
texted	him/hers.'						

⁽¹⁹⁾ Anna zawsze chwali swojego syna, swoja self's self's Anna always praises son and córke zawsze krytykuje. Zofia za to jego criticises Zofia for always this him daughter krytykuje, chwali. [strict and sloppy] zawsze ia always criticises and her praises

^{&#}x27;Anna always praises her son and always criticises her daughter. Instead, Zofia always criticizes him/her son and praises her/her daughter.'

(20)	Anna	oddała	swój	pierścior	ıek	zaręczyn	iowy ji	ıbilerowi
	Anna	gave	self's	ring		engagen	nent je	eweler
	do	wyczyszcze	enia.	Zofia	jego	nigdy	nawet	nie
	for	cleaning		Zofia	him	never	even	not
	zdejmuje	Z	palca,	chociaż	Z	inne	pierścionk	i
	takes.off	from	finger	althoug	gh	other	rings	
	też z	zostawia	do	czyszczen	ia.			[sloppy]
	also 1	eaves	for	cleaning				

^{&#}x27;Anna gave her engagement ring to a jeweler for cleaning. Zofia never even takes hers off her finger, although she also leaves other rings for cleaning.'

¹³ To make the sloppy reading easily accessible in (18), (19), and (21), the examples can be embedded within the respective contexts in (i)–(iii).

⁽i) Anna's and Zofia's sons got promoted. Anna has a good relationship with her son, but Zofia doesn't, which is why...

⁽ii) Anna and Zofia each have a son and a daughter.

⁽iii) Anna has a great relationship with her father, but Zofia does not.

(21) Anna: Zaprosiłam swojego kolację tate na Z invited.3sg.F self's dad on dinner for urodzin. okazji jego his birthday occasion 'I have invited my dad for dinner for his birthday.' Zofia: bvm kartki Ιa iemu nawet nie T him.dat would card even not posłała. [strict and sloppy] send 'Him/my father, I wouldn't even send a card.'

uile impossible to explain on an analysis linking the

While impossible to explain on an analysis linking the availability of the sloppy interpretation to the clitic status, these data are expected if such interpretation is available to pronominal NumPs, third person pronouns having the NumP representation at their disposal regardless of their morphological complexity on Ruda's (2021) proposal, on which the additional piece of morphology in full pronouns originates below rather than above Num (i.e., in $\sqrt{\text{inside a}} \left[\text{NumP Num} \left[n \sqrt{\text{j}} \right] \right]$ structure).

What is more, this kind of interpretation is available to the pronoun even if the antecedent does not introduce an individual, as in (22) with the non-referential antecedent *Matki* 'Mother's', where the pronoun is interpreted as referring to the speaker's mother.

(22) Dziś Dzień Matki. zaprosiłam jest wiec ja mother's invited her today is dav so do restauracji. restaurant to 'Today is Mother's Day, so I have invited her (my mother) to a restaurant.'

Finally, in the absence of a linguistic antecedent both a null object and an overt pronoun can yield the sloppy interpretation, as in (23), modeled after Tomioka's (2014b: 261) null object example from Japanese, which is also acceptable.¹⁴

(i) [Context: A sees B striving to squeeze a book into a full backpack.]
 A: Nigdy *(jej) tam nie wciśniesz.
 never her.GEN there not squeeze
 'You'll never squeeze it there.'

Note that the feminine pronoun jej 'her.GEN' has to be used here, as dictated by the grammatical gender of the noun $ksiq\dot{z}ka$ 'book' in Polish. The relation between the non-linguistic antecedent and the pronoun thus needs to be somehow mediated by the relevant lexical root (and taking into account its combination with an n head bearing the feminine gender feature

¹⁴ Again, it is not the case that the null object is always acceptable in the absence of an overt linguistic antecedent in Polish, even if the non-linguistic antecedent is salient in discourse, as illustrated in (i).

(23) [Context: You and a friend go to the same pottery class, and yesterday you each made your first coffee cup. Today you see your friend drinking coffee out of the one she made, and you say to her...]

```
Ja swój/ go/ ø podarowałam przyjaciółce.
I self's him gifted.1sg.F friend
'I gifted mine/it (the cup I made) to a friend.'
```

While a more detailed comparison than the one which can be offered here is due, what the data seem to indicate is that there may be a correlation between the contexts licensing object drop and the sloppy interpretation of pronominal objects in Polish. At first sight this seems to be in line with an approach unifying argument ellipsis and sloppy interpretation, as Bošković (2018) does, but suggesting that object drop in Polish is simply argument ellipsis (understood as full NP deletion at PF or its LF-copying equivalent) does not explain why in a number of cases a null object yields only the sloppy interpretation, in contrast to what is observed in similar cases in East Asian languages, among others, and in contrast to what can be expected on the assumption that a pronoun should be deletable as well (under partial identity with the antecedent; see Oku 1998).¹⁵

In addition to the sloppy interpretation in the contexts discussed above, quantificational antecedents have also been employed both in discussions of null arguments (see Takahashi 2008 and related work) and interpretive properties of clitics in South Slavic languages (see Runić 2013 and Bošković 2018), the latter of which argue in favour of unifying the two phenomena (via an analysis based on Tomioka's 2003 approach to null arguments in Japanese in Runić and via LF-copying-based argument ellipsis coupled with clitic doubling in Bošković). The next section is thus devoted to this environment.

2.1. Quantificational antecedents

As (24) illustrates, the quantificational interpretation is not available to the pronoun in Polish. The pronoun *ich* 'them' can either refer to the same set of teachers here or it can be understood to refer to teachers in general, the latter interpretation being expected to arise on the current assumptions, on which the pronoun can be interpreted as property anaphora.¹⁶

on the assumption that gender is encoded in *n*; see Lowenstamm 2008 and Willim 2012), one option being the introduction of the root in the syntactic structure of *jej* 'her.gen' in (i) and subsequent deletion along the lines of Sauerland (2007).

 $^{^{15}}$ In addition to argument ellipsis, deriving (some) object drop patterns from V-stranding VP ellipsis needs to be considered as a viable analytical alternative, especially in light of Merchant's (2018) constatation that verb identity is not required for VP ellipsis to apply. In Ruda (2017) I analyse null objects in Polish as deleted n(P)s.

¹⁶ These examples are based on parallel null argument Japanese examples from Takahashi (2008) and Şener and Takahashi (2010), where the null object can inherit the quantificational

(24)) a.	Anna	szanuje	większość	nauczycieli.	Zofia	też
		Anna	respects	most	teachers	Zofia	also
		ich	szanuje.				
		them	respects				
		'Anna r	espects mos	t teachers. Z	Zofia respects the	m/teacher	s too.'
	b.	Anna	szanuje	troje	nauczycieli.	Zofia	też
		Anna	respects	most	teachers	Zofia	also
		ich	szanuje.				
		them	respects				
			_	_		_	

^{&#}x27;Anna respects three teachers. Zofia respects them/teachers too.'

In this case contrast does not help, as shown in (25a), where the pronoun can refer to the same set of journalists, or, more plausibly, to any journalists relevant in the context (i.e., Anna turned out all journalists who came to see her on Wednesday, not only many of them). The second reading is thus similar to the reading in (25b), where the pronoun is accompanied by the quantifier wszystkich 'all'. The quantificational reading derived from the quantifier wielu 'many' in the antecedent is unavailable in (25a), casting doubt on the possibility of applying to Polish the reasoning linking the interpretation of overt pronouns to argument ellipsis.¹⁷

(25) a.	a. W poniedziałek Anna		Anna	przyjęła	wielu	dziennikarzy.
	on	Monday	Anna	received	many	journalists
	W	środę	wyprosiła	ich	za	drzwi.
	on Wednesday turned.out		them	behind	door	
	'On M	onday Anna rec	eived many	journalists. On Wednesday she sho		
	them/j	ournalists the do	or.'			

reading of the antecedent. Runić (2013) reports that BCS clitics behave in parallel to Japanese null arguments here and can likewise be interpreted as quantificational (see also Bošković 2018).

However, Tomioka (2014b) points out that structures with numerals frequently used in the literature are not the best test for the sloppy quantificational reading, as they can be analysed as denoting properties. On the other hand, downward-entailing quantifiers, which do not run into this problem, cannot be antecedents to null arguments in Japanese. This contrasts with what is predicted on the argument ellipsis analysis, but can be accounted for under the choice functional analysis of null arguments proposed in Kurafuji (2018), on which null arguments in Japanese are represented as empty NPs in the syntax. In this context in Polish the sloppy (quantificational) interpretation can be achieved by stripping (i.e., *Zofia też* 'Zofia too'). A null object is not acceptable in (24).

¹⁷ To the extent that the null object is acceptable here, it is associated with the quantificational reading of *wielu dziennikarzy* 'many journalists'. The most natural way to achieve this reading though is through repeating the quantifier and only eliding the following noun or through the use of phrases such as *tyle samo* 'as many'.

b.	W poniedziałek Anna		Anna	przyjęła	wielu	dzien	nikarzy.
	on	Monday	Anna	received	many	journ	alists
	W	środę	wyprosiła	ich	wszystkic	h	za
	on	Wednesday	turned.out	them	all		behind
	drzwi.						
	door						

'On Monday Anna received many journalists. On Wednesday she showed them all/all journalists the door.'

Another context which suggests that argument ellipsis is not involved in the interpretation of Polish pronouns is provided by the existential quantifier *kogoś* 'someone' in (26) and the n-word *nikogo* 'nobody' in (27). In the former case, the pronoun picks out the individual whom Anna adores, not just any unspecific person from the editorial office. The n-word in (27a) cannot be interpreted as substituting for the pronoun in the second sentence, which lacks a potential referent in this case, yielding pragmatic ill-formedness. In the modal context introduced in (27b), the pronoun refers to whoever would be hired, if Anna did hire someone. Substituting the pronoun with *nikogo* 'nobody' would result in unacceptability here, as the n-word needs to be licensed by sentential negation, Polish being a strict negative concord language.¹⁸

(26) Anna	uwielbia	kogoś	Z	tej	redakcji,
Anna	adores	someone	from	this	editorial.office
a	Zofia	go	nie	znosi.	
and	Zofia	him	not	tolerate	S
'Anna adores someone from this editorial office and Zofia doesn't tolerate him/					
this pers	son.'				

(27) a.	W	poniedziałek		Anna	nie	e przyjęła		nikogo	
	on	Monday		Anna	not	hired		nobody	
	do	pracy.	#W	środę		go		to	nie
	to	work	on	Wedn	esday	him	for	this	not
	zwolniła.								
	C 1								

'On Monday Anna didn't hire anyone. On Wednesday she instead didn't fire him.'

b.	W	poniedziałek		Anna	nie	prz	yjęła	nikogo
	on	Monday		Anna	not	hire	ed	nobody
	do	pracy.		ısiałaby	go	r	najpierw	
	to	work	wo	ould.have.t	o hir	n f	ìrst	
	przesz	kolić,	a	na	to	nie	ma	czasu.
	train		and	on	this	not	has	time
	'On M	londay .	Anna di	dn't hire a	anyone. S	he wou	ld have	to train him/this per-
son first and she hasn't got the time for this.'								

¹⁸ To the extent that it is acceptable, the null object in the context of (26) has the interpretation of *kogoś z tej redakcji* 'someone from this editorial office'. Similarly, in (27a) the null object would be interpreted as *nikogo* 'nobody'. Dropping the pronoun in (27b) is unacceptable.

Thus, while overt pronouns can in some contexts receive the sloppy reading in Polish, the patterns observed with quantificational antecedents show clearly that the pronoun is not interpreted in parallel to what we expect to find in contexts of argument ellipsis and the data are thus not similar to argument drop data in languages such as Japanese, in contrast to what Runić (2013) and Bošković (2018) report for BCS and other South Slavic languages.

3. Further theoretical considerations

The example in (28) from Runić (2013: 420) further illustrates that BCS clitics can be associated with both the strict and the sloppy reading.

(28)	Nikola	je	pozv	7ao	(svoju)		djevojku	na	slavu,	
	Nikola	is	invi	ted	self's		girlfriend	on	slava	
	a	pozvao)	ju		je	i			
	and	invited	1	her.cl.	ACC	is	too			
	Danilo.							[BCS, strict	t and sloppy	1
	Danilo									

'Nikola invited his girlfriend to the slava and Danilo invited his (Danilo's/Nikola's) girlfriend too.'

Bošković (2018: 3) notes that the sloppy reading is not available in this context in English, as in (29), and suggests that the relevant difference is in the clitic status of the corresponding pronominal in BCS.

(29) Nikola invited his girlfriend, and Danilo invited her too. [only strict]

Importantly, it is not the case that clitics can always be associated with the sloppy interpretation. Since in languages such as Macedonian clitics do not make this reading available, Bošković (2018) suggests that an additional factor is at play, namely the presence or absence of articles in a language (the presence or absence of the DP layer; see also Runić 2013). Hence, connecting the hypothesis that argument ellipsis is unavailable in DP languages (Cheng 2013) and the observation that the sloppy reading is unavailable with clitics in such languages leads Bošković (2018) to propose that argument ellipsis is responsible for the sloppy reading with clitics in NP languages.¹⁹

¹⁹ More specifically, building on his 2008 and 2012 proposal that languages are divided into the NP and DP classes, where in the former argumental NPs lack the DP layer and are of type <e, t> (undergoing covert type shifting to type <e>), whereas in the latter argumental NPs project the DP layer, in which case D is responsible for the <e> denotation (see Chierchia 1998, and the discussion of the differences between Chierchia's and Bošković's systems in Bošković 2018: fn. 25), Bošković (2018) proposes that only elements of type <e, t> can be

Bošković (2018) follows the LF copying implementation of argument ellipsis (see Oku 1998; Saito 2007), which means that in examples such as (28) above the NP (svoju) djevojku '(self's) girlfriend' is Case-licensed in the first clause and then is copied at LF and inserted into the second clause, where it doubles the clitic. As it does not need to have Case licensed (again), the structure is acceptable, even though regular clitic doubling is mostly unavailable in BCS, as in (30) from Bošković (2018: 15).

(30) *Ivan ga piše pismo.

Ivan it is.writing letter

'Ivan is writing a/the letter.'

Bošković (2018) suggests that prototypical instances of clitic doubling in BCS are unavailable due to Case-licensing issues in that the clitic is assigned Case, which cannot be assigned also to the NP here. As on Saito's (2007) account, which Bošković adopts, argument ellipsis involves LF copying of the NP which has had its Case feature licensed prior to this operation, the LF-copied NPs do not require Case licensing and clitic doubling is possible with argument ellipsis in BCS. Substituting the clitic with a non-clitic pronoun blocks the sloppy reading in BCS, which according to Bošković (2018) is explained if clitics are the only pronoun type which can be accompanied by argument ellipsis, responsible for the sloppy interpretation. This, in turn, follows on the assumption that the relevant structures are represented as clitic doubling structures. Thus, neither (weak/strong) pronouns nor clitics make the sloppy reading available on their own. This reading is rather a direct result of argument ellipsis. When the latter is available, the sloppy reading is observed. When it is not, it is not.

Interesting as it is, Bošković's (2018) proposal poses some non-trivial questions. From the acquisitional perspective, the unavailability of overt clitic doubling in languages which make the sloppy reading available at least in some contexts suggests that this kind of a procedure cannot be acquired based on overt evidence. Furthermore, the proposal does not generalise to languages lacking not only clitic doubling but also pronominal clitics, but still manifesting

targeted by argument ellipsis. Bošković (2018: 23) generalises this into (i), suggesting also that the copying operation applies in the (covert) syntax before type shifting takes place.

⁽i) Only elements of type <e, t> can be copied in LF.

This accounts for the availability of argument ellipsis only in NP languages, since nominal arguments are of type <e> in DP languages. However, it is unclear how these assumptions can derive argument ellipsis with antecedents realised as CPs, pronouns, proper names, quantifier phrases, and phrases with demonstrative pronouns, which are arguably not of type <e, t>. Bošković's approach is also incompatible with Landau's (2018) analysis of Hebrew object drop as argument ellipsis, the language clearly belonging to the DP class.

the sloppy reading of overt pronouns. The focus here has mostly been on Polish, but the empirical picture is complicated further by the fact that in some contexts even languages such as English make the sloppy reading available. In fact, the availability of the sloppy reading of pronouns in such languages is a reason why Merchant (2013, 2018) goes so far as suggesting that such readings should not be used as a diagnostic for ellipsis at all (see also Kasai 2014 and Tomioka 2014a, 2014b). This seems reasonable, since, even though English highly restricts the sloppy reading, as Bošković observes, this reading is clearly available and requires a theoretical account. One approach in this context is to assume, as Bošković does, that two different mechanisms are needed to account for such readings in BCS as opposed to English (and likely Polish). Another way to proceed is to look for a solution which would be applicable in all contexts and then see how different languages restrict its application.

In addition to data from Polish, which lacks clitics, data from Greek can also pose a challenge to Bošković's (2018) proposal. While Greek has both clitics and overt clitic doubling, it is a language with articles, which Bošković takes to block argument ellipsis, as noted above. Yet, as Merchant (2018: 252) shows, the sloppy reading with pronouns in Greek is much more widely available than in English and it is compatible with different kinds of antecedents (see (31)–(32)).

(31)	O	Alexandro	s edhose		ton	kalitero	tu	eafto	
	the	Alexandro	s gave		the	better	his	self	
	afu	ton	edhose	kai	O				
	because	it	gave	and	the				
	Pavlos.						[Greek	, only sloppy]	
	Pavlos								
	'Alexan	dros did hi	s best becaus	e Pav	los did.				

(32)	Ι	Ana	exase	tin	zoi	tis	afu	tin
	the	Ana	lost	the	life	her	because	it
	exa	ase	kai	i	Maria.			[Greek, only sloppy]
	los	t	and	the	Maria			
	'A	na lost	her life be	ecause Ma	aria did.'			

 $^{^{20}}$ This holds even if the sloppy reading in English is analysed as NP deletion, as in Elbourne (2005, 2013), as here only a subpart of the argument is deleted, not its full maximal projection.

²¹ These restrictions can in fact be different for different types of what we can collectively call the sloppy reading in a single language. One relevant avenue of research would thus be to also consider paycheck, donkey etc. contexts in BCS, where there appear to be intriguing requirements in terms of grammatical and semantic gender matching between the pronoun and the antecedent (see Wechsler 2006).

An anonymous reviewer suggests that there may be a significant correlation between the lack of articles and the availability of sloppy readings. However, as also Greek and English pronouns can have sloppy reading, as shown later in the text, examining the putative correlation needs further work, which is beyond the scope of this paper.

In this context English blocks the sloppy reading, as in (33), suggesting that perhaps English is special in imposing very strict restrictions on the availability of the sloppy reading, whereas it is languages such as Slovenian and BCS which should be viewed as baseline.

- (33) a. Arnold lost his life in the war, but before he lost it, he had written a letter to his mother.
 - b. Arnold lost his life in the war, and #Bernard lost it, too.

Interestingly, features such as the singular/plural distinction and inalienable possession play a role in the availability of the sloppy reading in English, as in (34) and (35) from Tomioka (2014b: 253–254).

- (34) a. Johnny worships his father, but Bobby finds him annoying. [*sloppy]
 - b. Johnny loves his grandparents, but Bobby finds them overbearing.

[??sloppy]

- c. Professor A treats his students with respect, but Professor B treat them like idiots. [OKsloppy]
- (35) a. Bertha writes her papers by herself, but Carla usually co-authors them with others. [?sloppy]
 - b. Johnny lost his virginity at 18, and Timmy lost it at 20. [OKsloppy]

These data point to the relevance of semantic and pragmatic factors, similarly to what has been suggested by Franks (2013) with respect to the sloppy reading of clitics in BCS and what is clearly found in Polish as well. This pertains not only to the interpretation of pronouns, but also bare NPs in Slavic languages in general, whose discourse anaphoric, paycheck and donkey anaphoric uses are likewise affected by contrast (see Ruda 2021 for some examples). The data discussed throughout this paper thus show that contrast influences the availability and interpretation of different kinds of nominal expressions in Polish (sloppy readings of pronouns, null object licensing), though potentially other factors in need of further investigation may have a role to play as well.

Conclusion

Investigating the properties of Polish personal pronouns from the perspective of the strict/sloppy reading ambiguity, I have shown that the availability of the latter is mediated by contextual factors in Polish (esp. contrast). The general picture of the sloppy reading of overt pronouns which emerges from the discussion is thus that it is in principle available not only with pronominal clitics, but also with phrasal pronouns, including the full

(morphologically largest) forms. I have suggested that this results from third person pronouns having the NumP representation, in addition to PersP, regardless of their morphological complexity. Such a representation can be interpreted as property anaphora, yielding the required reading.

It should also be noted that the sloppy reading can be manifested by deep anaphoric null arguments such as the ones used without linguistic antecedents (see Kasai 2014 and Tomioka 2014b for a discussion of Japanese and Section 2 above for data from Polish) and even in Japanese, a language which makes argument drop widely available, overt pronouns can also have the sloppy reading (see Tomioka 2014b). What all this shows is that the empirical picture is much more complex than it seems at first and that data from a broader spectrum of languages and contexts are needed if we are to be successful in disentangling all the relevant factors and developing an optimal theoretical approach.

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