Gradients of pronominal and verbal deficiency
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1. Goals

- To address Cardinaletti and Starke’s tripartite classification of pronouns and show that it is insufficient.
- To demonstrate that C&S’ “Minimise Structure” principle is not supported by diachronic data from Slavic.

2. C&S’s three-way-hierarchy of pronoun

- Cardinaletti and Starke’s (C&S, 1999) seminal work on the hierarchy of grammatical categories classifies pronouns into strong pronouns, weak pronouns, and clitics, depending on their syntactic strength, as illustrated in (1).

(1) Deficiency hierarchy in C&S 1999

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Pronouns
<table>
<thead>
<tr>
<th>Strong</th>
<th>Deficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak</td>
<td>Clitic</td>
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- C&S argue for an exclusively tripartite system, which consists of just one strong and two deficient forms, on the basis of their distinct distributions and syntactic behaviors. The deficient variants are argued to be the default options, following C&S’s “Minimise Structure” principle.

- Cetnarowska (2003, 2004) departs from C&S’s tripartite system and proposes a quadripartite pronoun scale, with an additional class of strong unstressed pronouns (2).

(2) strong (stressed) pronouns > unstressed pron > weak pron > clitic pron

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WAS [+stress] 'you_{GEN,PL}' was [-stress] 'him' się 'refl.cl.'
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(Cetnarowska 2004:14)

- Her main motivation comes from the availability of pronominal elements in Polish, which are unstressed but can be topicalized (3a) and coordinated with NPs (3b), contrary to C&S’s predictions.

(3) a. *W*as NIE da się zapomnieć
you_{GEN,PL} NEG manage REFLEX manage ‘One cannot forget you.’

b. *W*idząłem *w*as i mamę w kinie
see_{PART.MSG} you_{ACC} and mom in cinema ‘I saw you and mom in the cinema.’

(Pl, Cetnarowska 2004: 46)
Cetnarowska observes that strong unstressed pronouns are morphosyntactically identical with their stressed counterparts, differing from them only in terms of stress, which raises a possibility that stressed and unstressed pronouns actually form a single class which can be pronounced without stress whenever necessary.

3. A Quadripartite Pronoun Hierarchy

3.1. Old Russian.

The Old Russian data indicate that there can be a clearly distinct, non-reduced class that is inherently unstressed but syntactically free in the pronominal system. This system is not based on the strong-weak dichotomy as in C&S’s and Cetnarowska’s proposals, but it rather consists of multiple grades with different degrees of syntactic deficiency.

In contrast to Modern Russian, which lacks pronominal or auxiliary clitics, Old Russian (11th-15th cc.) featured reduced dative and accusative pronouns, as well as 1st and 2nd person forms of the auxiliary be, traditionally analyzed as second position enclitics (Zaliznjak 2004, 2008). A more detailed analysis of these forms, however, provides support for more nuanced distinctions with respect to morphosyntactic strength than the clitic/non-clitic division.

First, non-reduced, orthotonic pronominal forms such as je/ty, tьнě/tobě, and mene/tobe are clearly strong pronouns, occurring with emphatic stress, as illustrated in (4a), and appearing in a coordinate structure along with a full DP, as shown in (4b).

(4)  a. a kodo тi mně xliььtu i tobě and where CONTR měDAT.ISG breadsNOM.M.SG there also youDAT.2SG ‘And where there is bread for me, there is also one for you.’ (OR. BBL 731. Zaliznjak 2004: 392)


Second, reduced dative and accusative pronouns such as mi and me, traditionally analyzed as clitics, are in fact weak pronouns, given that while they cannot be coordinated or topicalized, they can appear after prepositions, as shown in (5).

(5)  postrьчььь užь na me i na moe deti. provoke3SG already against meACC and against my children ‘(He) then provokes against me and against my children.’ (OR. BBL 831. Zaliznjak 2004: 302)

Third, the reduced reflexive pronoun sę should be classified as a full-fledged clitic. It undergoes gradual grammaticalization into a suffix, which is evidenced by its occasional appearance in a post-verbal position, as compared in (6a and b).

(6)  a. pokланju ti sę. bow1SG youDAT REFLACC ‘I bow to you.’ (OR. BBL 605. Zaliznjak 2004: 271)

b. zando gne ne mьžemь nicимь jemu udobriti sę. because lord NEG can1PL by nothing himDAT satisfyINF REFLACC ‘because, oh lord, we can let him be satisfied by no means.’ (OR. BBL 94. Zaliznjak 2004: 592)
Finally, the present tense forms of the auxiliary *byti* ‘to be’ (1st/2nd p.) correspond to Cetnarowska’s (2004: 39) “strong unstressed pronouns,” as they are morphologically non-reduced but appear in unstressed positions.

These auxiliary forms appear as a kind of subject pronouns, when compared to weak subject pronominals in the Fiorentino dialect of Italian and Modern Standard French. As illustrated in (7), in Fiorentino a weak subject pronoun is obligatory regardless of the presence/absence of a strong subject in the sentence.

(7) Fiorentino

*(Gli) è venuto delle ragazze.  
SCL is come_{PART,M.SG} some girls

‘Some girls came.’  
(Brandi and Cordin 1989: 121)

This pattern supports the analysis of *gli* as an agreement marker, not as a weak subject pronoun (Brandi and Cordin 1989). The obligatoriness of weak subject pronouns (or subject clitics, depending on researchers) in Fiorentino appears in a contrast with the distributional patterns of weak subject pronouns in Modern Standard French, as shown in (8a-c).

(8) Modern Standard French

a. Quel livre a-t-il lu?  
WSP – participle

which book has-EPEN-WSP.3SG read_{PART}

‘Which book did he read?’

b. Qu’a mangé lui?  
participle – SSP

what has eaten_{PART} he

‘What did he eat?’

c. Quand lui a-t-il téléphoné?  
SSP – WSP – participle

when he has- EPEN-WSP.3SG telephoned_{PART}

‘When did he telephone?’

In Modern Standard French, weak subject pronominals are optional in the presence of strong subjects, which indicates that these forms are weak subjects, and not agreement markers, unlike in the case of *gli* in Fiorentino.

As illustrated in (9a-c), Old Russian auxiliary shows the same distributional patterns as Modern Standard French weak subject pronouns.

(9) a. дахь *jesь*  
given_{PART} AUX_{1SG}  
participle – AUX

b. азъ дахь  
I_{NOM,1SG} given_{PART}  
SSP – participle

c. азъ *jesь* дахь  
SSP – AUX – participle

Thus, it is concluded that Old Russian auxiliary is in fact a weak subject, and not an agreement marker. Data such as in (10a, b) even more clearly show that the auxiliary in Old Russian functions as a subject pronoun of a finite verb, on a par with strong subject pronouns such as азъ ‘I’ and азъ ‘you,’ just like accusative and dative clitics are paired with their strong counterparts (see Zaliznjak 2004: 179, Kwon 2009: 161).
(10) a. a togo žь jesmi ne znaju, u kogo kupišь.
    and that CONTR AUX1SG NEG know1SG from whom buyPART.M.SG
    ‘And I don’t know from whom I bought.’ (OR. Zaliznjak 2004: 179)

b. a ženy ne viděšь ješi budešь vь sně.
    and womanGEN NEG seePART.M.SG AUX2SG beFUT.2SG in dream
    ‘And you will not have seen a woman in a dream.’ (OR. Zaliznjak 2004: 179)

—In (10a), the second position clitic žь is a contrastive topic/focus marker (McCoy 2003), which occupies C°. Given the position of jesmi between C° and a finite VP, jesmi is adequately analyzed as occupying Spec,IP as a subject constituent, resulting in the agreement on the finite verb znaju.

—Like strong pronouns, an auxiliary-as-subject assumes full morphology and is not tied to second position or verb-adjacent position, as illustrated in (11a, b).

(11) a. a čto povelilo jesì...
    and whatACC orderedPART.M.SG AUX2SG

b. čto jeste mně veleli ou putila koně vzeti
    that AUX2PL meDAT.1SG orderedPART.PL from Putil horseACC takeINF
    ‘that you ordered me to take a horse from Putil.’ (OR. BBL 697. Zaliznjak 2004: 576)

—There is no instance of the auxiliary in coordination with other tonic nouns, but the corpus also lacks whatsoever instances of strong subject pronouns that coordinate with full nominals.

—In sentence (12), jeste appears as a continuing topic, which is distinguished from the stressed contrastive topics vy and my.

(12) a jeste poslušali Polovčeь,
    and AUX2PL listenedPART.PL PolovecsACC.PL
    a posly naša jeste izbili ....,
    and messengers our AUX2PL beatenPART.PL
    tь vy poidite; a my vasь ne zajali.
    thus youNOM.2PL goIMV and weNOM.2PL youACC.PL NEG takenPART.PL
    ‘And you listened to Polovcь, beat our messengers…. then, you go, and we didn't take you.’ (OR. Novgorodian Chronicle, 1224, 98-99)

—The auxiliary-as-subject is unstressed:

—While a strong subject pronoun such as (j)azь and ty always appears as a contrastive topic or focus, as demonstrated by the contrast marker že or ti (13), an auxiliary-as-subject never appears with these markers (e.g. *jesmь ti, *jesmь že), which indirectly shows that this category cannot bear an emphatic stress. The lack of a contrastive, emphatic stress is a characteristic of Cetnarowska’s strong unstressed pronouns.

(13) jazù ti jesmь sde Ljubeci požeglà.
    I NOM.1SG CONTR AUX1SG here Ljubec burnPART
    ‘As for me, I burned Ljubec here.’ (OR. Hypatian Chronicle, 1147, 130)

—Sentence (14) contains a fused from of the auxiliary form jesmь and the participle iměla, hence jesměla. While it is possible to view this form as a scribal error, this form may indicate that the auxiliary form and the participle constitute a single phonological unit, with the auxiliary form being unstressed.
3.2. Polish

- South and West Slavic languages have two types of deficient pronouns: verb-adjacent and second position clitics. Modern Polish has a different type of deficient pronouns. They are usually referred to as weak pronouns, and they have different properties than clitics.

- In contrast to pronominal clitics found in South Slavic, which follow the strict dative–accusative order (except for Slovenian, see below), both dative–accusative and accusative–dative orderings of weak pronouns are possible in Polish. The dative–accusative pattern is more common and semantically neutral (see Witkoś 1998), but the choice of the respective position of the pronouns is determined by information structure requirements, see Cetnarowska (2003).

(14) a. język tę jasniła aky brate sobe.
   and I NOM.SG you ACC.SG be ISC.TP as brother REFLECT DAT
   ‘And I have taken you as my own brother.’ (OR. BBL 752. Zaliznjak 2004: 249)

(15) a. Czy Maria pożyczyła Barbarze swój rower?
   if Maria lend PART.F.SG Barbara DAT her-own bicycle ACC
   ‘Did Maria lend her bicycle to Barbara?’
   b'. Tak, w końcu jej go pożyczyła, mimo że Markowi pożyczyć
    yes, in end her DAT it ACC lend PART.F.SG although Marek TOP DAT lend INF
    go nie chciała
    it ACC NEG want PART.F.SG
    ‘Yes, she eventually lent it to her, even though she didn’t want to lend it to Marek.’
   b''. Tak, w końcu go jej pożyczyła, mimo że motoru pożyczyć
    yes, in end it ACC her DAT lend PART.M.SG although moped TOP GEN lend INF
    jej nie chciała.
    her DAT NEG want PART.F.SG
    ‘Yes, eventually she lent it to her, even though she didn’t want to lend her a moped.’ (PL)

- Stegovec (2000) shows that Slovenian also permits dative–accusative and accusative–dative orderings, and like in Polish the order is sensitive to information structure, with the accusative clitic occurring first when it is a salient topic established in a previous utterance. Stegovec concludes that Slovenian clitics are internally more complex than clitics in other South Slavic languages.

(16) a. Mama mu ga je opisala.
   if mom him DAT him ACC is AUX describe PART.F.SG
   ‘Mom described him to him.’
   b. Mama ga mu je opisala
   DO INTO
   (Slovenian, Stegovec 2020)

- Weak pronouns in Polish are not required to be adjacent to an element of a specific lexical category, such as the verb as in languages with verb-adjacent clitics, or to other pronominal elements, and they do not need to form clusters.

(17) Jan mu wczoraj chciał go wynająć nie sprzedać.
   Jan him DAT yesterday wanted it ACC rent INF but not sell INF
   ‘Jan wanted to rent it to him rather than sell it yesterday.’ (PL)

- Weak pronouns may be unaccented coordinating conjunctions i and a (see 18). In South Slavic languages, this pattern is found only in Bulgarian. It indicates that it is sufficient for weak pronouns to be supported by any phonologically overt material, regardless of its grammatical category or feature specification.
Janek poszedł do tego pana i mu wszystko powiedział.

‘Janek went to that man and told him everything.’

(Pl, Rappaport 1988: 321)

- Weak pronouns do not target special positions in the clause in Polish, they may scramble like non-pronominal NPs, with two restrictions: they cannot be clause-initial and are avoided clause-finally.

1. Często (go) spotykam (go) na ulicy (?go)
   often himACC meetPRES1SG himACC on street himACC
   ‘I often meet him on the street.’

   (Pl, see Spencer 1991: 367–368)

2. Spotykam go
   ‘I meet him.’

- However, it seems that the restriction on the clause-initial placement is getting relaxed, as some speakers allow weak pronouns clause-initially, for instance the dative form mię, especially when it occurs with the reflexive pronoun się.

3. %Mi się wydaje, że...
   meDAT REFL seems that
   ‘It seems to me that…’

(Pl)

Witkoś (1998) shows that deficient pronouns in Polish display the following properties, which may indicate that they are weak pronouns (in the sense of C&S 1999):

- they cannot be topicalized

4. Ciebie/*cieę spotkaliśmy w kinie.
   youACC meetPART.M.PL+AUX.1.PL in cinema
   ‘We met you in the cinema.’

- they cannot be coordinated with lexical NPs

5. Wczoraj *cieę/ciebie i Annę spotkaliśmy w kinie.
   yesterday youACC and AnnaACC meetPART.M.PL+AUX.1.PL in cinema
   ‘We met you and Anna in the cinema yesterday.’

- they cannot undergo constituent negation

   meetPART.M.PL+AUX.1.PL in cinema not youACC but AnnaACC
   ‘We met not you but Anna yesterday.’

However, recall from section 2 Cetnarowska’s (2004: 39) observation that 1st and 2nd object pronouns in Polish behave in an unexpected way for C&S’s (1999) tripartite hierarchy: they are unstressed, but they allow topicalization and coordination with lexical noun phrases (see the examples in 3).

Moreover, the distribution of weak pronouns in Polish is unexpected in view of C&S’s “Minimize Structure” principle, which stipulates that weak pronouns are the default, unmarked options. In Old Polish pronominal clitics were placed in second position or they were verb-adjacent, as illustrated in (24) with data from Holy Cross Sermons (Kazania Świętokrzyskie), the oldest Polish prose text from the late 13th/early 14th century.
(24) a. a togodla ji we zle chustki ogarněla
and therefore him_{ACC} in bad cloth wrap_{PART.F.SG}
“and therefore she wrapped him in bad cloth” (OP, Sermon III, On St. Michael’s Day)
b. Naleži ji, prawi, pieluszkami ogarnięgo a w jasłach położonego
him_{ACC} true nappies_{INST} wrapped and in cribs laid
“They found him wrapped in nappies and laid in cribs” (OP, Sermon III, On St. Michael’s Day, Migdalski 2016: 303)

○ In subsequent texts, the clitics show greater freedom of their position in the structure and start to resemble the contemporary distribution. This indicates an unexpected diachronic development: the pronominal forms become stronger.

3.3. Macedonian

○ Macedonian, like Bulgarian, has verb-adjacent clitics. However, in non-verbal predicates, such as adjective phrases, noun phrases, and passive participles, clitics seem to be located in second position, as in (25). In the case of nominal predicates, the clitics may not be preceded by more than one constituent (see 25c) and they also are precluded in the clause-initial position (see 25d), though this requirement is becoming relaxed, as will be shown.

(25) a. Petko mi e tatko.
Petko me_{DAT} is father
‘Petko is my father.’
b. Tatko mi e.
father me_{DAT} is
c. *Petko tatko mi e.
Petko father me_{DAT} is
d. *Mi e tatko.
me_{DAT} is father
(Mac, Tomić 2000: 295; Bošković 2001: 255)

○ Korubin (1974), Tomić (1997; 2000), and Baerman and Billings (1998) point out that recently some speakers of Macedonian started to allow clause-initial placement of clitics when they are found in adjectival predicates and passive participles (see 26a and 27a). Furthermore, they also permit non-second position occurrence, with the clitics appearing lower in the structure, as indicated in (26c) and (27c).

(26) a. Mil si mu
dear_{MSG} are_{2SG} him_{DAT}
“He likes you”
b. %Si mu mil

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(27) a. %Mu e rečeno da bide točen poveče pati
him_{DAT} is tell_{PASS} to be_{SUBJ} punctual more times
‘He was told to be punctual more than once.’
b. Rečeno mu e da bide točen poveče pati
c. Na Petera (mu e) od strana na komisijata (mu e)
to Peter_{DAT} him_{DAT} is from side of commission-the him_{DAT} is
poveče pati (mu e) rečeno da bide točen.
more times him_{DAT} is tell_{PASS} to be_{SUBJ,3.SG} punctual
‘Peter was more than once told by the commission to be punctual.’
(Mac, Tomić 2000: 296–299)
o Bošković (2001: 254–264) suggests that these data may indicate that Macedonian represents an intermediate stage between a language with second position and verb-adjacent clitics. However, given the examples in (26c) and (27c), which feature non-second position placement of the pronouns, we propose that a different type of change is taking place, which is not related to the switch between verb-adjacent versus second position cliticization (see Jung and Migdalski 2015). As shown in (28), which is the Bulgarian variant of (26b), the clitics must be adjacent to the passive participle in such structures in Bulgarian. By contrast, Macedonian does not require the clitics to be verb-adjacent or appear in second position, as they can be scrambled to different positions within the clause.

(28) Na Petur mne e kazvano mnogo puti ot strana na komisijata to Peter himDAT is tellPASS many times from side of commission-the da bude tochen.
that beSUBJ.3.SG punctual
‘Peter was more than once told by the commission to be punctual.’

(Bg, Migdalski 2016: 300)

o Therefore, it is more likely that the clitics in non-verbal predicates in Macedonian are being reinterpreted as weak pronouns. On a descriptive level, they undergo the process of degrammaticalization, as a result of which they become prosodically strengthened and exhibit more robust scrambling possibilities. This is another case, in our view, which violates C&S’ “Minimise Structure” principle

4. An appendix: Gradients of verbal deficiency

We argue for the following scale of deficiency among verbal elements

- tonic verbs >> clitics >> e/je >> affixes

o There is a variation in the strength and distribution of perfect auxiliaries and past perfect auxiliaries in languages such as Bulgarian and Serbo-Croatian. The past perfect auxiliaries are tonic elements, which have the same distribution as lexical verbs, with no morpho-prosodic deficiencies or special requirements.

(29) Bjaxa celi knigata
bePAST.3PL readPART.M.PL book-the
‘They had read the book.’

(Bg)

(30) Bejaše čitao knjigu
bePAST.3SG readPART.M.SG book
‘He had read a book.’

(S-C)

o The perfect auxiliaries are enclitics, which precludes them from clause-initial placement; in addition, they follow the cliticization requirements in the respective languages (verb-adjacency in Bulgarian and the second position requirement in Serbo-Croatian).

(31) a. Azčel sum knigata
IreadPART.M.SG amPRES.1SG book-the
‘I have read the book.’

(Bg)

b. *Süm čel knigata
(32) a. Ja/čitao sam knjigu
   I/readPART.M.SG beaUX.PRES.1SG book
b. *Sam čitao knjigu
   beaUX.PRES.1SG readPART.M.SG book
   ‘I have read the book.’

In Polish, the perfect auxiliaries are either clitics or affixes (see Borsley & Rivero 1994, Witkoś 1998, Franks & Bański 1999).

We argue that there is a class of more deficient clitics in Slavic, represented by the 3rd person auxiliary (j)e. This form follows pronominal clitics (see 33a), in contrast to the other auxiliaries (e.g. sam in 33b), which precede them.

(33) a. On mu ih je dao
   he himDAT themACC isAUX.ISG givePART
   ‘He gave them to him.’
b. Ja sam mu ih dao
   I amAUX.ISG himDAT themACC givePART
   ‘I gave them to him.’

The special placement of (j)e has been explained in different ways: (j)e losing clitichood Bošković (2001); it the default form devoid of any phi-features (Franks 2017), or a spell-out of the number feature with no person features (Migdalski 2020). Talić (2018) observes that je (and the reflexive se) are the only two enclitics that never interact with the accent of the host, which indicates that it is clearly weaker than the other clitics.

References


